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I. Introduction

This Quality Manual should be read as a supplement to the Philips Lighting Business System.

The Philips Lighting Business System is designed to help us deliver our purpose in accordance with our values. As we execute our strategy and invest in the best opportunities, leverage our unique strengths and become operationally excellent, we will be able to consistently deliver value to our customers, consumers and other stakeholders.

Our purpose in this Quality Manual is to underpin the Business System with our Quality System so our customers and other interested parties can see how we meet the requirements of ISO 9001. This ensures that our lighting products, systems and services fulfil our brand promise, are safe, fit for use and comply with local regulatory and environmental requirements.

Our Quality System incorporates our Process Framework and, to put it simply, sets out how we do things in Philips Lighting to satisfy our customers.

Our purpose
To unlock the extraordinary potential of light for brighter lives and a better world.

Our brand promise
Philips Lighting delivers innovation that matters to you.

Our values
Customer first – Greater together – Game changer – Passion for results
Always acting with integrity.
Philips Lighting is a leading provider of products, systems and services for professional and consumer markets. We address lighting needs in a full range of environments – indoors (homes, shops, offices, schools, hotels, factories, and hospitals) as well as outdoors (public places, residential areas and sports arenas). In addition, we deliver light-inspired experiences through architectural and city beautification projects. Our lighting is also used for specific applications, including horticulture, refrigeration lighting and signage.

With the new lighting technologies, such as LED technology, and the increasing demand for energy efficient systems and services, Philips Lighting will continue shaping the future with ground-breaking new lighting applications.

Philips Lighting’s global network
Philips Lighting’s global network ensures that we are always close to our customers in about 180 countries. The company has sales organizations in around 60 countries. Commercial activities in other countries are handled via dealers.

Philips Lighting has manufacturing facilities located around the world, including: the Netherlands, Belgium, Germany, France, Poland, the United States, Brazil, India, Thailand, the People’s Republic of China and Mexico.

Quality System & scope
Our purpose and values, are underpinned by our Quality System to ensure we consistently provide products, systems and services that meet customer requirements always aiming to enhance customer satisfaction. The Quality System applies to the whole of Philips Lighting. We require all our organisations to be compliant to the ISO 9001 standard, and have all factories compliant to ISO 14001 & OHSAS 18001. For ISO 9001, ISO 14001 and OHSAS 18001 we are aiming for one company-wide certificate for Philips Lighting.

II. Lighting organization and operating model

“We govern through Business-Market Combinations and a Single Value-Added Layer.”

Our operating structure is intended to be simple, agile, and enabling fast decision making. In short, we aim to be highly responsive to customer needs. We avoid role duplication and coordination roles by having only two layers across all functions and end-to-end process steps. One layer that drives and shapes and the other that executes. Everything converges at the Executive Committee. They own the overall result, set the governance framework, and determine the strategy and resource allocation.

Empowering Business-Market Combinations
At the core of our structure are the Businesses and Markets who work in equal partnership in Business-Market Combinations (BMC) to drive fast decision-making and local relevance. In practice, this means that the Business Groups and Markets bear joint accountability for the operational results and collaboratively own the Profit & Loss (P&L). BMC plans are formalized by a handshake between the Business Group leader and Market leader and are resourced to win by both. For purely global businesses, the Business Group is accountable.
Business Groups and Businesses
Our Business Groups are organized around technology. Business Groups operationally manage a portfolio of businesses, own order-to-cash (manufacturing) and drive transformation across businesses. Businesses are responsible for executing innovation-to-market (i.e. creating the offer roadmap, managing and optimizing the offer) and Business-Market Combination planning & execution.

Market Group and Markets
Our Market Groups are clustered around market maturity, geography and size. Market Groups operationally manage a portfolio of markets, own order-to-cash (commercial supply chain), and drive cross-market transformation. Markets are responsible for defining the market strategy, executing market-to-order (i.e. marketing and sales activities), and Business-Market Combination planning & execution.

Management and Enabling Functions
Our functions shape the organization through each of their areas of expertise. They drive functional excellence and transformation in a single value-added layer. Deployment and execution of functional priorities takes place in Business Groups, Businesses, Market Groups and Markets.

Philips Lighting Organization Chart
III. Commitment to Quality

Quality Policy

Philips Lighting

• Everything we do starts with our customers, by listening to their needs and expectations, and ends with our customers by ultimately satisfying them.

• We are thus committed to providing the highest levels of customer satisfaction by delivering quality, sustainable lighting products, systems and services that improve people’s lives.

• Our focus is to deliver quality and operational excellence, and as a learning organization, drive continuous and permanent improvement in our processes. We use the Net Promoter Score as the primary indicator for customer satisfaction to listen to and learn from our customers and partners in order to further improve.

• Together with our suppliers, we ensure that our lighting products, systems and services fulfill our brand promise, are safe, fit for use and comply with local regulatory and environmental requirements.

• Our Quality System is based on ISO 9001 to reach world class performance. Our Environmental System is based on ISO 14001 and we comply with the Electronic Industry Citizenship Coalition (EICC) Code of Conduct.

• We develop, support and stimulate our employees to achieve world class performance, nurturing an environment in which we all live our values: Customer first; Greater together; Game changer, Passion for results - while always acting with integrity.

We are responsible for quality. It is what we stand for – everyone; everything; everywhere; every time. Our Quality System Portal provides constant access to all of the current processes of the company to enable each employee to be knowledgeable about and to live our Quality Policy in their daily work.

Our personal commitment in Philips Lighting is that “Quality comes first and starts with me”.

Eric Rondolat
CEO Philips Lighting

Reference: QS-ExC1-001 V4.01
### Customer Quality Objectives

<table>
<thead>
<tr>
<th>Quality objectives derived from Quality Policy</th>
<th>Key Performance Indicator(s)</th>
<th>Accountable Manager</th>
<th>Responsible Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction &amp; Loyalty</td>
<td>Net Promotor Score</td>
<td>Lighting Market Group Leader</td>
<td>BG Leader</td>
</tr>
<tr>
<td>Product and Systems Quality</td>
<td>Cost of Non-Quality Return Rates / Complaints</td>
<td>Development Manager</td>
<td>Manufacturing Manager</td>
</tr>
<tr>
<td>Delivery Reliability</td>
<td>On-time deliveries</td>
<td>Operations Manager</td>
<td>Supply Chain Manager</td>
</tr>
<tr>
<td>Sustainability</td>
<td>Green Sales</td>
<td>Market Manager</td>
<td>Account Manager</td>
</tr>
<tr>
<td>Service &amp; After Care</td>
<td>Complaint Resolution Time, Service Net Promotor Score</td>
<td>Market Manager</td>
<td>Customer Satisfaction Manager</td>
</tr>
<tr>
<td>Customer Relationship Management</td>
<td>Net Promotor Score</td>
<td>Market Manager</td>
<td>Account Manager</td>
</tr>
<tr>
<td>Efficiency &amp; Operational Excellence</td>
<td>Internal Cost of Non-Quality, Obsolete stock</td>
<td>Operations Manager</td>
<td>Product Quality Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supply Chain Manager</td>
</tr>
</tbody>
</table>

**Note:** The above table provides an overview of the main process outcome metrics as “customer experience” impacts. Our end-to-end value chains have output metrics monitoring process results (lagging) and internal process metrics (leading) are in use for every aspect mentioned to assure process control.

The Organisation of Lighting Quality is described in QS-ExC1-004 Quality & Customer Satisfaction charter.

### IV. Commitment to Performance management and improvement

**Performance management**
- Performance management is part of the leadership process and reviewed through the key meeting structure (annex 1). The key meeting structure is deployed along the axis of each business, market and function of Philips Lighting.
- Performance on customer satisfaction is measured using the Net Promoter Score (NPS) and Customer Satisfaction indicators.

**Improvement**
- Improvements are identified in:
  - The strategy (top priorities in management agenda)
  - Performance review meetings (performance improvement)
  - Reviews and assessments (non-conformity with standards, guidelines, policies, etc.)
- Improvement plans are defined at various levels throughout the organisation.
- Based on their impact on the business and complexity, improvement actions are assigned to End-to-End transformation teams, the pool of black belts, green belts, business improvement teams, local individuals or teams.
V. Commitment to Leadership

Our purpose and values

Our purpose and values provide our people with a common direction about why we exist, what we value, and how we work.

- Philips Lighting works to become a customer-focused, market-driven company with a strong performance-oriented culture. To make this a reality, our leaders need to gain the full commitment and engagement of everyone in the company.
- In our People Performance Management (PPM) and rewards systems, employees are not only assessed on whether they achieved their targets (the “What”) but also on the way they achieved them (the “How”).
- The how involves our company values - Customer first – Greater together – Game changer – Passion for results – while always acting with integrity in compliance with Philips’ General Business Principles (GBP).

VI. Quality System

Philips Lighting became a stand-alone company in February 2016

During 2016 we launched our new Philips Lighting Quality System aiming to transform into a truly process driven organization. Going forward we will document our policies, processes, accountabilities and performance indicators in our Quality System, in time replacing all current quality and business management systems. In essence, it will help us deliver quality products, systems and services that are compliant with the relevant rules and regulations. It will be 'the single source of reference’ on how we operate and will include the agreed ways of working, related roles and responsibilities, as well as key performance and result indicators. Internally, it provides us with assurance of the quality of products systems and services, compliance with procedures and
regulations. Externally, our Quality System is used for ISO and other regulatory and compliance certification across Philips Lighting.

Illustration of the Philips Lighting Quality System process framework

Continuously Compliant – always audit ready: Compliant during transition

The transition of the Philips Lighting Quality System is a journey – not a turn-key action. To effect the transition the process framework is being deployed in a controlled manner – only when processes are validated and always after processes are released into the Quality System.

This will mean for a period of time that parallel processes may be in operation in different sites and locations as process deployment programs are implemented through the levels of the organization. To help identify “the old from the new” we have implementing in a new document referencing approach for the process framework. In time, the “old BMS document references” will be replaced by QS pre-fixed documents.

Illustration of the phased transition from BMS document to Quality System documents
Quality System policy

- Philips Lighting uses the Quality System to describe its ways of working, roles & responsibilities and defines the handshakes between operational and functional activities in the Lighting organization.

- The Quality System incorporates the process framework and the operating model as described in the Philips Lighting Business System and drives uniformity of processes across Business-Market Combinations and Philips Business models.

- Business Process Owners (BPO’s) are responsible for design, deployment and continuous improvement of standard processes, capabilities and tools to drive excellence; designing and driving deployment of the process framework.

- The majority of the Quality System is ISO 9001 controlled and certified within the “Multi-site Certificate” and validated by regular external audits.

- Quality System (internal and external) audits are used to confirm the implementation of the Quality System. Philips Lighting Internal Audit validates compliance of the total Quality System.

Quality System Architecture – from 3 levels to a single process framework

The Lighting Quality System describes how we manage with respect to Quality from end to end along our defined paths to value and is described in more detail in the next section Process Framework.

The Quality System architecture follows the process framework of end-to-end operating processes supported by Management and Enabling processes

<table>
<thead>
<tr>
<th>The Quality System – a single framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>The process framework comprises: -</td>
</tr>
<tr>
<td>- A single process framework of process domains with supporting...</td>
</tr>
<tr>
<td>- Global standard processes described and documented to relevant levels of detail ...</td>
</tr>
<tr>
<td>- Supported by BPO approved local additional details (Only if required)</td>
</tr>
</tbody>
</table>
Remaining compliant during and beyond the transition to the Quality System

1. The Quality System assures we always operate to ISO 9001 requirements. Valid BMS documents remain in place until they are removed through our Quality System Change Control Process (or they expire). New process documents are also released using our Quality System Change Control Process.

2. Our Quality System consists of the Quality manual, policies, the process framework, global processes, procedures, instructions, templates and tools, records and data.
   - Lighting processes are developed, validated and deployed by the Process Owners.
   - Business Group and Market Group leadership and Heads of Management and Enabling Functions ensure that the management system and its processes are implemented and executed in and across the entire Philips Lighting. We operate to Lighting standard processes. There are no exceptions to the Philips Lighting global way of working.

3. Businesses and Markets operate to the Lighting standard processes. In line with the performance review structure and to preserve global standards, the interface between the Philips Lighting level and the Business and Market level is managed by the Lighting process owners or their specific boards. Only where specific business and market regulations require, process owners can approve additions (or exemptions) from Lighting standard processes.

4. Local operations (factories, sites, sales organizations etc.) operate to the Lighting standard processes. In line with the performance review structure and to preserve global standards, the interface between the business and market level, and the local factory or sales organization, is managed by the next higher level of Philips Lighting process experts. Only where local product regulations or legislation require, global process experts can approve document additions (or exemptions) from Lighting standards processes.

Process Framework

The Process Framework is designed to achieve the Philips Lighting objectives. The processes are aligned with the Philips Lighting End-to-End value chains and owned by Executive Business Process Owners (BPO’s).

Process Documentation for the Quality System is organized according to the following table

<table>
<thead>
<tr>
<th>Process Domain: Idea to Market (I2M)</th>
<th>Purpose</th>
<th>Executive BPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>How we bring relevant ideas to market, optimized for the right margins and consumer experience, in the fastest time possible, at the right time, and with the right quality.</td>
<td></td>
<td>Head of Innovation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process Domain: Market to Order (M2O)</th>
<th>Purpose</th>
<th>Executive BPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>How we reach more customers and consumers and create loyal Philips Lighting promoters.</td>
<td></td>
<td>Market Group Leader (Europe)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process Domain: Order to Cash (O2C)</th>
<th>Purpose</th>
<th>Executive BPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>How we deliver superior products and services to our customers and consumers in an efficient and responsive way.</td>
<td></td>
<td>Head of Operations</td>
</tr>
</tbody>
</table>

**Enabling processes**

Our functions shape the organization through each of their areas of expertise. They drive functional excellence and transformation in a **Single Value-Added Layer.**

CEO Lighting and Heads of Functions
VII. Roles & responsibilities for the Quality System

Management Representative
- The CEO of Philips Lighting assigned the Head of Quality & Customer Satisfaction as the management representative for the Quality System. As such, he has authority over and responsibility for:
  - Ensuring that the Quality System requirements are effectively established and maintained through audits and management reviews.
  - Reporting on the performance of the Quality Management System and proposed needed improvements to the Philips Lighting Leadership Team and Quality System steering board.

Process owners
- Defining the process, including defining the quality records.
- Ensuring availability, deployment and monitoring of the processes.
- Ensuring and maintaining compliance to standards and guidelines.
- Reviewing and improving their process.

Employees
- Roles and responsibilities for all employees are defined, documented and communicated through organization charts, procedures and job descriptions. Job descriptions are available via the HR portal and/or with the functional manager.

VIII. Quality System review

Management review
- The Quality System meets the requirements for certification to international standards including ISO9001 and is regularly checked by internal and external audits.
- The Philips Lighting Management Review takes place at least once a year and includes
  - the effectiveness and improvement of the Quality System
  - the review of Quality policy & metrics and Quality System approaches
  - the analysis of internal and external audit results
- Recommendations from the reviews are agreed in the Quality System steering board to assure
  - alignment of the Quality System strategic direction with actual and future Lighting developments
  - the impact of Quality System developments is communicated via functional reviews & business reviews to the Philips Lighting Leadership Team
  - sufficient resources are available to effectively establish the Quality System and its processes
- Business Groups, Businesses, Market Groups, Markets and functional organizations review if current processes lead to the expected results, and use these review results as input for their management agendas and commitments.

IX. Resource management & training

Resource management
- Based on the Philips Lighting Strategy, people, resources, the current and future competency levels of the resources are defined and led by the functional organisations, in conjunction with the Business Group and/or Market Group organizations. Based on that, the resource planning and training plan is derived and followed up.
Training

- Philips Lighting University has implemented a process to define and monitor skill levels and training needs, to train the employees and to ensure that a record of employee training is being maintained. This process ensures that employees receive training that enables them to fulfil their current work assignments safely, effectively and efficiently. The training relates to the individual development plans and functional/role competency development planning that is derived from People Performance Management (PPM), or the respective (at least annual) competency reviews.

X. Control of documents and communication of changes

Control of documents

The global Quality System documents are reviewed and approved in the following manner:

<table>
<thead>
<tr>
<th>Level</th>
<th>Review</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality System Governance</td>
<td>Quality Policy and Quality Manual</td>
<td>Quality System Steering Board</td>
</tr>
<tr>
<td>Lighting Process Framework</td>
<td>Business Process owners on behalf of Executive Process Owners</td>
<td>Process Framework Governance Board on behalf of the Philips Lighting Leadership Team (future Quality System Process Framework Governance Board)</td>
</tr>
<tr>
<td></td>
<td>• Process Framework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lighting Policies and Standard Processes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Process Owners</td>
<td>Quality System Change Board</td>
</tr>
<tr>
<td></td>
<td>• End-to-End processes,</td>
<td>- Lighting Level</td>
</tr>
<tr>
<td></td>
<td>• high impact changes*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Domain Process owners:</td>
<td>Quality System Change Board</td>
</tr>
<tr>
<td></td>
<td>• Domain standard processes,</td>
<td>- Domain level</td>
</tr>
<tr>
<td></td>
<td>procedures, related documents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Local additions to standards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Domain Process Experts</td>
<td>Quality System Change Board</td>
</tr>
<tr>
<td></td>
<td>• Local Requirements</td>
<td>- Local / entity level</td>
</tr>
<tr>
<td></td>
<td>• Local Work instructions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As organised locally</td>
<td>Changes in processes need to be confirmed by the process experts of the next level (Procedures may be approved by the same level)</td>
</tr>
<tr>
<td></td>
<td>To be phased out</td>
<td></td>
</tr>
</tbody>
</table>

*High impact changes that impact the interaction between and across operating and enabling processes

NB: General practice is that the Executive Business Process Owner delegates the approval of Quality System documents to the domain Business Process Owner

Minor changes (which are ‘non-content’ related changes such as typos, formats, header/footers, etc.) can be approved by the process expert or quality management system manager.
To prevent the use of obsolete documents, the Quality Manual, processes, sub-processes, procedures and instructions are identified with a unique ‘number’ and version. Printed copies are uncontrolled.

Communication of changes
- Changes to Philips Lighting level Quality System documents are announced at the home page of the Quality System communication platform.
- Process Owners are responsible for communicating changes of processes within their domain.

Storage of documents
Global processes, procedures, work instructions etc. are made available in a global Quality System document repository.
Local processes, procedures and work instructions can be found at site, regional and functional levels.

XI. Overview of Quality System management processes and procedures

<table>
<thead>
<tr>
<th>Identification</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>QS-ExC1-003</td>
<td>Quality management</td>
</tr>
<tr>
<td>QS-ExC1-160</td>
<td>Guidance for Quality System management review</td>
</tr>
<tr>
<td>QS-ExC1-170</td>
<td>Guidance for Quality System Process Assessment</td>
</tr>
<tr>
<td>QS-ExC1-171</td>
<td>Procedure for Quality System Process Assessment</td>
</tr>
<tr>
<td>Process 17.1.4.4</td>
<td>Manage documented information in the Quality System</td>
</tr>
<tr>
<td>QS-ExC1-012</td>
<td>Identification of Quality System documents</td>
</tr>
<tr>
<td>QS-ExC1-180</td>
<td>Quality System document rules</td>
</tr>
<tr>
<td>QS-ExC1-183</td>
<td>Quality System document control table</td>
</tr>
</tbody>
</table>

The identification of preventive & corrective actions and tracking these to closure are an integrated part of the processes, as described in:

- QS-ExC1-122 Philips Lighting Safety Recall Procedure including template checklist
- QS-O2C3-012 Industrial quality complaints/rejects are handled using problem solving methodology (including “8D” for complex issues) to identify and track to closure corrective and preventive actions
- QS-ExC1-162 Procedure for Product Risk Management using Failure Mode and Effects Analysis (FMEA)
- QS-ExC1-005 Customer Satisfaction (Complaint handling is done, where appropriate, with 8D methodology)
- QS-Proc-001 Supplier Quality & Sustainability (Complaint handling where appropriate, using 8D methodology)
NB: The Philips Lighting Quality System includes local management systems. These are aligned with the Philips Lighting global processes and the Lighting way of working and are compliant with applicable ISO 9001 requirements.

Non-conforming products
Where applicable, e.g. in factories, warehouses, the local organization shall establish a procedure that defines the controls and related responsibilities and authorizations for dealing with non-conforming products. This is to ensure that a product that does not conform to product requirements is identified and controlled to prevent its unintended use or delivery.
### Annex 1: Philips Lighting 2017 performance review meetings timetable

#### Leadership, planning & review

|----------|-----------------------|----------------------------------------|-------------------------------------|------------------------|------------------------|-------------------|------------------------|------------------|

#### Annex 2: Glossary & Abbreviations

### Annex 1: Philips Lighting 2017 performance review meetings timetable
Annex 2: Glossary & Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>Business Group</td>
</tr>
<tr>
<td>BMC</td>
<td>Business-Market Combination</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>E2E</td>
<td>End-to-End</td>
</tr>
<tr>
<td>HRM</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>I2M</td>
<td>Idea to Market</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>LLT</td>
<td>Lighting Leadership Team</td>
</tr>
<tr>
<td>M2O</td>
<td>Market to Order</td>
</tr>
<tr>
<td>NPS</td>
<td>Net Promoter Score</td>
</tr>
<tr>
<td>O2C</td>
<td>Order to Cash</td>
</tr>
<tr>
<td>PPM</td>
<td>People Performance Management</td>
</tr>
<tr>
<td>QS</td>
<td>Quality System</td>
</tr>
<tr>
<td>SCM</td>
<td>Supply Chain Management</td>
</tr>
</tbody>
</table>