EBOOK

Taking on the challenge of complexity in the lighting industry

TELEMATEL >

Sales Layer

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Introduction

With years of experience providing data solutions to key players in the lighting industry, Telematel and Sales Layer have combined information from various projects within the sector to bring you a comprehensive guide on the new challenges facing companies in the lighting sector.

Using Sales Layer's data centralization PIM solution, Telematel are able to quickly build out resources that offer better agility in the connection of information across millions of products.

The Lighting Industry is currently seeing significant growth due to many factors, though mostly due to the introduction of new technologies.

However the transformation going on in the industry is significantly increasing the amount of data that needs to be generated and handled by any manufacturer to remain competitive and profitable.

The ability to cope with the complexity of this data leaves a company with real threats to its own growth and profitability may be inhibited. Coping with complexity is testing the largest organisations in the world and in the Lighting Industry it is even more exacting.

We anticipate big changes coming in the lighting industry, and the following content will give you an idea of how Telematel and Sales Layer aim to act quickly to give our customers the advantage.

02

The challenge of complexity

Electricity to electronics

The lighting industry is reaching some kind of breaking point.
With LED becoming the standard technology, the industry has had to move quickly to manage the increase in information surrounding these new products. From traditional light bulbs to lavish home lighting installations, layers of information have been added. Newer, greener lighting regulations mean retailers are struggling to get the right additional information into their marketplaces at the right time.

Given the complexity of the modern light bulb which now contains more parts: from the heatsink, to the PCB, to the LED chip, more complexity has been added to the supply chain, so the industry needs new business processes to cope with all the data. On the datasheet, this is all evident. The number of fields has increased for every variant of the lightbulb. This adds extra fields of information that are different with every innovation.

The right information at the right time

The speed of innovation in the lighting industry puts pressure on manufacturers and retailers to get products quickly to market. Future “smartness”, is going to create further complexity to the amount and type of data filling product specifications for lighting products.

The 21st century lighting system

As the lighting industry moves ever more towards energy efficient LED lighting, coupled with connectivity and Human Centric lighting, huge advances will be needed to sync homes with apps with lighting installations. This will create dependencies across the board, and the sharing of information to make these systems work flawlessly will be key.

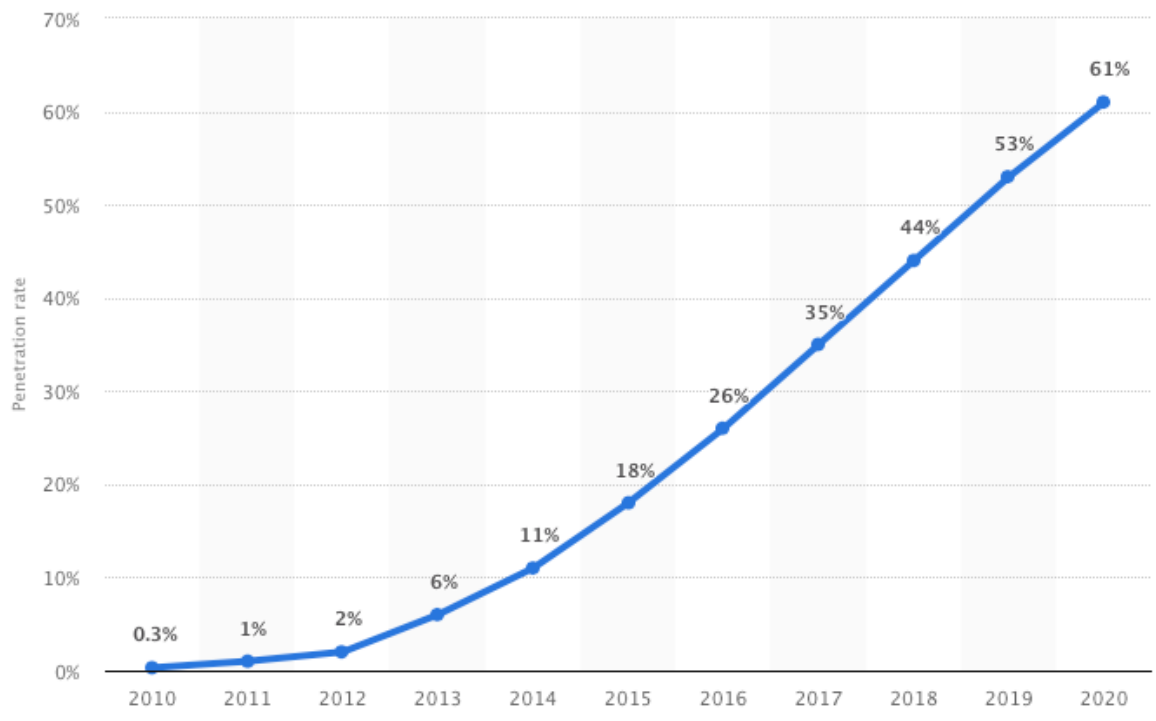
03

Innovation and new technologies

The global footprint of the lighting industry has doubled in the years from €4.6bn in 2010 to a projected €8.3bn in 2020. More people than ever have light in their homes and their workplaces, and access to a wider range of lighting to fit every situation is making the industry more efficient.

The shift towards halogen, LED and OLED has created product catalogs that are more complex, with more parts, resulting in even longer datasheets.

Estimated LED penetration of the global lighting market from 2010 to 2020



Applied lighting and new products

A wider range of applications are becoming available due to innovations in technology:

- **Automotive**. Advanced Electronic control units (ECUs) now control lighting for the automotive sector from the forward and rearward lamps, to more aesthetic internal lighting systems. The move to LED lighting for vehicles offers huge advantages in flexibility, but adds complexity to the supply chain due to the number of parts used in these systems.

- **Materials**. Spacial lighting and hidden lighting systems are incorporated into spaces to create new lighting concepts that are both modern and energy efficient. Projects are relying on more suppliers and more materials.

- **OLED**. The lighting industry is headed towards a sea-change in Organic Light Emitting Diodes, once again introducing many new components. OLED will become the industry standard by 2025. Businesses that adapt to the change from LED will have an advantage in the market.

04

Marketers in the lighting industry are struggling to keep pace

In the industry as a whole, Product Information Management, cloud-based infrastructure and even Enterprise Resource Planning has low penetration. One reason could be that there is a common held belief in the simplicity of the Lighting product and marketplace and that technologies such as these were too costly and just not necessary. However as the data surrounding increasing advanced lighting products gets more complicated and rises exponentially so there is a need to take another look at new tools to help.

The latest cloud-based SaaS systems are a quick way for marketers to take control of their product data and start automating.

Marketers in the lighting industry are struggling to keep the pace of the well-funded R&D teams in product. Their time is spent creating new catalogs, approving, printing, and then starting the cycle again.

Consider the workflow stages for getting a product loaded onto a catalogue.

1. Supplier sends template to catalogue
2. Supplier requests photos
3. ERP system registers the product
4. Remote sales renames photo
5. Commercial dept completes product fields in excel
6. Excel loads onto ERP
7. ERP sends to web
8. Catalogue workers enrich content on the web
9. Remote sales validate the information

And this is just the catalog.

Without collaboration in business infrastructure, interdepartmental information is being shared inefficiently across entities of thousands of people, from administration to product design, and it is here that the problems start.

Innovation is driving many new products faster than infrastructure can keep up. As product teams race to integrate new technologies into their products, businesses are not integrating the right logistics set-up to manage the speed of innovation. This results in supply issues, and a slower time to market overall.

Typically for a manufacturer information moves between a number of interactive departments such as design, R&D, buyers, and then marketing. Each of the stages requires the transfer of accurate data to finally create a lighting product datasheet which can identify a particular product for sales at any number of outlets.

Here is some of the typical information you would find for modern lighting datasheet:

- Certification
- SKU
- Product reference
- Dimensions
- Cost
- Features
- Order code
- Packing code
- Compatibility
- Fittings

The flow of this communication directly affects the overall efficiency and value of the product.

Don’t stop innovating

The problem is that innovation drives companies forward which normally manifests itself as product proliferation. So if both innovation and time to market need to be improved; any solution needs to be able to manage these two things.

This gets to the heart of modern supply chains. Many companies have experienced extreme upheaval in their product management. Royal Philips was profitless from 2000 to 2010 as it changed its whole infrastructure to manage the flow of information through the company. The marketing team were working with over 60 ERPs, time to market was down to a trickle, and the company was facing insolvency.

To overcome this, the company needed to streamline and over the following years it merged 9 business channels into just 2, one of which it has now sold off (now Signify).

With PIM, cloud-hosted information can be distributed to key stakeholders at speed. New technology is driving both product innovation, and business infrastrastructure, too.

05

Regulation for energy efficiency

Good for the planet,
not so much for the marketer

Business information is multiplied when other facets such as language and regulation come into play.

The amount of information for one product needs to replicated not only in the manufacturer's catalog, but across the company website, distributors in other territories, online marketplaces, and many more. Add translation into this and you may be creating millions of fields of information.

Further complexity is added across territories, as further information is required to meet the Energy Standards of each market.

Target 2020 - European Energy Regulation

All of the key players are moving towards energy efficiency, innovation and smart lighting. Playing an important role in this, is regulation. As global energy agreements such as the European Target 2020 focus heavily on energy consumption. Compliance with these guidelines will drive energy efficiency forward by up to 20%. For marketers though, it means extra information is added to the datasheet.

Regulators were behind in setting standards for LED lighting, and though now in place, far eastern manufacturers are still fighting to reach compliance. Obtaining the certifications of compliance of Energy Star for exports has taken a considerable amount of effort. Unifying companies' databases could make this process much faster, with greater transparency from business to business, and even make the regulators' jobs easier.

The European Energy Certification certification added an extra level of complexity to datasheets, and companies numbering over 150000 products may have had over a million data fields added to their inventories overnight.

Tighter Regulation

An increase in certification and regulation is adding ever deeper complexity to a product life that from start to finish, has never been simple.

The new components, the cross border trade, the manufacture, the move towards online buying, and compatibility for smart products is creating a perfect storm of data that many companies are finding hard to cope with.

06

Cloud hosted Product Information Management

Digital transformation will make product information easier to access and easier to share. Thinking of the alliances the exist in the lighting industry, connected apps allow for closer ties between different sectors that need to start working together to face the oncoming challenges.

Having the ability to share key information (and only key information), between suppliers and retailers will reduce time to market.

Security will also be improved. Databases can be accessible only to those who have permissions, meaning companies can share product information with the right people at the right time. For example, information shared to certain distributors can be modified to be only visible to a select few, depending on the information they need.

Industry alliances

As we move even further into IoT integration, the alliances that will be formed will be closer to entities. The lighting industries, the tech industries, and the building industries will need to work as a unit. To do this, the connected integrations applied with digital transformation will be a smart way to share important product information.

07

The politics of information in the Market

Manufacturing	Logistics	Distributors	Reatilers	Recycling and disposal
• Efficiency • Controls • Sourcing • Agility	• Transportation • Operational costs • Time to market • Warehouses	• Collaboration • Innovation • Technical guidance • Industry trends	• Markets • Applications • Systems • Branding	• Recycling • Landfill

With so many links in the chain and so much data and information passed between those links, who takes oversight of the product information?

Manufacturers need to be sure that the information released to any marketplace is compliant. This is important both for compliance and for branding. With connected technologies such as PIM, distributors and retailers can receive information directly from the manufacturer.

Without a connection to sales channels, whether direct or indirect, can manufacturers be 100% sure that the information will be treated correctly, or adapted to fit the needs of the retailer?

And can manufacturers be sure that once the product information is released, that changes to it might even negatively affect their brand?

Using dedicated systems such as PIM, results in more control for marketers. The centralized, cloud-hosted information is connected to the sales channels, doing two things:

1. It gives the manufacturer control over the data, meaning product information is accurate and consistent across all channels and any changes to product information are made at the top level.

2. The retailer, distributor or marketplace no longer have to worry about having the right version of the data. It is updated in the cloud in real time.

For the customer, what does all of this mean?

The modern consumer is simply looking for a product that they can understand. As we move to more online purchases, product data is the only differentiator, and without a clear, centralized silo of all of this information, there is a serious risk, as almost happened in Royal Philips case, that companies will not survive the shift from the high street to the internet.

Modern branding has changed in the last ten years. Customers' behaviour in buying products has changed. Social media and product reviews are important. Relying on retailers and online platforms to manage that branding is risky. Brands need to know that customers are having the experience of a product that has been mapped out by the marketing team at the start of the journey.

Having product information clearly laid out, compelling and consistent for all parties who will be distributing or reselling products, means a better experience for the end consumer.

What damage does unconnected information pose to a brand?

- Decreased product experience
- Lack of trust
- Higher prices
- Less visibility
- Lower productivity
- Increased TTM

08

The right information, at the right time

Marketplaces are the new places to purchase and customers are increasingly using places such as Amazon and eBay. Smart Lighting brands are commonly using online marketplaces to open up their products to new markets. They can also take advantage of quick and easy to use connectors that PIM gives them to facilitate more sales channels and even greater sales. As the industry is gripped by digital obsession, opportunities are there for the taking. PIM enables the 'Single source of truth or many truths' for product information, connecting ERPs and Logistics through to Ecommerce platforms, Catalogs and Catalog design apps.

A huge challenge for marketing departments is the mammoth task of catalog creation, production, approval, and printing. This task is seasonally repeated and involves a team of people.

Using the same software for centralization of databases means product information can be connected to InDesign and Catalog printing apps for automated creation of catalogs. Getting this information to wholesale sellers is an expenditure taken wholly by the manufacturer. Speeding up this process will mean direct savings for manufacturers.

A different way of thinking:

With fully centralized information, permission can be given to accredited retailers for access to certain parts of the database. Printed catalogs can be then made, or microsites of certain parts of the catalog can be created in a matter of clicks, to be displayed on screens and devices for customers.

The problem that Lighting brands and manufacturers often experience when they send product information to the retailer or wholesaler is that responsibility for accuracy is lost on the way as priority becomes one of presence rather than quality.

Through custom templated connections detailed and accurate product data can flow seamlessly from a lighting brand or manufacturer to retailers and wholesalers with more quality and speed giving them a cutting edge in the market.

As digital transformation takes hold both in the supply and purchase of lighting products, the emphasis is on businesses to adapt quickly to the new reality.

Many marketing teams are now finding that using a PIM enables them to cope with the new world of complex lighting product information and changes taking place in the market. Companies such as Signify, Rexel and Schneider Electric are able to drive innovation, quality and sales and be ‘first in the market’ through efficiencies in their marketing workflow processes, offered by PIM.
The speed at which products can go from the factory to the shelf is being reduced as a result of this technology.

If an industry as incumbent as the lighting industry is able to manage and implement new digital strategies, the whole world will benefit from the efficiencies and the savings.

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