





Unveiling Design Leadership: A Case Study of Philips' Chief Design Officers Stefano Marzano and Sean Carney

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Abstract. Embedded within a doctoral investigation centered on the Chief Design Officer's role, this article delves into the designer's capacity as a functional leader driving innovation to a strategic echelon, illustrated through the Philips case study.

Philips, a global conglomerate, has undergone substantial organizational shifts in the past three decades, evolving from perceiving design as an external element to incorporating it intrinsically as a functional facet. Amid this evolution, the influence of two Chief Design Officers, Stefano Marzano, and Sean Carney, has been prominent. Their impact transcends inter-functional collaboration and corporate design culture, manifesting primarily in the integration of design principles into the company's strategic vision.

This study's findings contribute by affirming the circumstances wherein design assumes a functional and strategic role under the leadership of a Chief Design Officer. Through an integrative methodology encompassing literature review, ethnographic exploration, and empirical analyses, the research delves into the multifaceted role of Chief Design Officers in contemporary corporate landscapes. The investigation unravels the symbiotic interplay between design leadership and strategic innovation. The empirical insights from the Philips case highlight CDOs as catalytic agents of design-driven innovation, bridging creativity with pragmatic business imperatives, and exploring their responsibilities, skills, philosophy, methodologies, and initiatives. By providing empirical insights, this article advances scholarly discourse on design leadership, augmenting the comprehension of CDO influence and its transformative potential within modern enterprises.

Keywords: Design Strategy · Chief Design Officer · Philips

1 Introduction

In the realm of contemporary corporate dynamics, the fusion of design thinking and strategic innovation has emerged as a pivotal force propelling organizations toward fast levels of growth and transformation. At the heart of this evolution stands the figure of the CDO, a key player whose influence resonates across diverse industries, reshaping conventional paradigms of business and design convergence. As organizations increasingly embrace the intrinsic value of design as a strategic driver, the critical role of the CDO emerges as a focal point of inquiry and exploration.

The integration of design leadership within corporate ecosystems is underscored by a profound shift in organizational ethos. The transition from a design-as-a-service paradigm to a design-as-a-strategic-function represents a strategic pivot rooted in the recognition of design's catalytic potential in fostering innovation, differentiation, and holistic user experiences (Mozota & Amland, 2020). The strategic recalibration orchestrated by CDOs showcases the commitment of organizations to human-centered design philosophies that harmonize with evolving market dynamics, technological advancements, and user expectations.

As the embodiment of design's ascendancy to strategic eminence, CDOs encapsulate a profound paradox—they are both design champions and corporate strategists. These individuals orchestrate an intricate dance between creativity and pragmatism, ushering design excellence into the heart of strategic decision-making (Dalrymple et al, 2020; Quint et al, 2022). While the significance of CDOs is proven a comprehensive empirical understanding of their impact remains an ongoing scholarly pursuit.

The research is conducted within the scope of an ongoing Ph.D. research that delves into the intersection of design leadership and organizational transformation. Considering the aforementioned discourse, this study embarks on a multifaceted investigation to elucidate the manifold dimensions of the CDO's role within corporate environments. It delves into the orchestration of design-led innovation, the dynamic interplay between design thinking and strategic alignment, and the transformative potential of design in shaping organizational trajectories. Through an integrative lens that encompasses a comprehensive literature review, ethnographic exploration, and empirical analyses, this research seeks to unravel the nuanced intricacies of CDO influence.

The ongoing Ph.D. research encompasses an iterative cycle of abductive design thinking and inductive management reasoning. The construction of the theoretical framework is underpinned by a collection of case studies involving multinational corporations lead by CDOs. This article resides within this phase, serving as a critical juncture within the broader research trajectory, where ethnographic techniques and literature review are employed to enrich the Philips [1] case study. This is achieved by mapping the design leaders and focusing on the organizational transition that has unfolded over the past three decades, under the guidance of CDOs Stefano Marzano and Sean Carney. This transition centers around Philips Design [2] and the integration of design as a pervasive function throughout the entire organization.

The exploratory nature of this study involves probing into the roles of Philips' CDOs and an analysis of their functions, mindsets, and competencies. This analysis is juxtaposed with corporate practices and innovations, laying the groundwork for the potential establishment of strategic recognition of design's value within the enterprise, achieved through dialogues with top management.

In the pursuit of advancing scholarly discourse and enriching the comprehension of design leadership within corporate contexts, this study addresses pivotal queries:

- What delineates the transformative contours of the design leadership of Philips, particularly through the prism of Chief Design Officers?
- What are the main responsibilities, mindsets, competencies, methodologies, and strategic initiatives undertaken by Sean Carney and Stefano Marzano as CDOs of Philips?

The subsequent segments of this article, encompassing methodologies, results, and discussions, unfurl the tapestry of insights harvested from rigorous research pursuits. Through the integration of diverse empirical and theoretical inputs, this investigation aspires to contribute to the academic discourse surrounding design leadership, amplifying the resonance of CDO influence in shaping contemporary corporate landscapes.

2 Research Methodology

It is important to emphasize that this study constitutes a constituent element of an ongoing Ph.D. research initiative. The exploration of design leadership and the strategic role of CDOs within corporate ecosystems is a central tenet of this research trajectory. The empirical inputs garnered from diverse case studies, including Philips, synergistically contribute to the theoretical construct underpinning the doctoral investigation. The research questions and hypotheses, prompted by insights from the case studies and literature review, are systematically examined by the research team to enrich the depth and breadth of knowledge in this domain.

Thereby, this research undertook a case study methodology, which affords a holistic understanding of the phenomenon within real-life contexts. Philips emerged as a central case study, reflecting the convergence of design leadership and corporate strategy. The holistic investigation of Philips' transformation journey under the stewardship of a CDO unveiled valuable insights into the alignment of design with strategic goals and the catalytic impact of design leadership on organizational innovation.

The research methodology employed in this study is grounded in a comprehensive review of the state-of-the-art and ethnographic investigation. This investigation constitutes a case study and is an integral component of an ongoing doctoral research initiative aimed at elucidating and validating the role of a Chief Design Officer (CDO) within the context of corporate environments. This study serves as a pivotal part of the broader research endeavor led by the research team, focusing on the exploration and substantiation of the CDO's strategic significance.

The research journey commenced with an extensive and meticulous review of the state of the art. This literature review encompassed an eclectic range of scholarly articles, books, case studies, and industry reports. The purpose was to glean insights into the evolving landscape of design leadership, the efficacy of CDOs, and their impact on organizational innovation and transformation. By synthesizing the corpus of existing knowledge, the research team identified gaps, trends, and patterns that informed the formulation of research questions and hypotheses.

To delve deeper into the practical implications of design leadership and its strategic integration, an ethnographic approach was adopted. Ethnography enabled an immersive exploration of the organizational dynamics, practices, and design processes within Philips. Expert interviews, literature reviews, mapping CDOs, and product range evolution analyses were employed to triangulate insights and enhance the credibility of the findings. Through this ethnographic lens, the research team sought to uncover the intricate interplay between design leadership, innovation strategies, and organizational structures.

3 Design as a Strategic Resource: The Role of the Chief Design Officer

There is a growing recognition that design, as a process, strategy, and philosophy, holds significant contributions to the field of organizational studies.

Throughout the history of design management, strong connections between design, innovation, and organizational performance have been acknowledged and explored (Brown, 2009; Dorst, 2015; Verganti, 2017). Amidst the discourse concerning design's strategic positioning within organizations, scholars have adeptly demonstrated how design can function as a pivotal strategic asset (Hands, 2017; Brown, 2019; Mozota & Amland, 2020). Additionally, scholars have delved into the interplay between design and organizational cultures (Bertola & Teixeira, 2003; Lockwood, 2004; Elsbach & Stigliani, 2018). In parallel, various studies underscore that the value inherent in design for corporate innovation significantly hinges upon the commitment of upper-level management (Design Council, 2014; Sheppard et al., 2018).

The role of the Chief Design Officer (CDO) has been established within large organizations, elevating design to the executive level, where leadership defines the strategy, policy, and mission of design's scope of operation within enterprises (Best, 2006; Holland & Lam, 2014). As such, a CDO assumes a holistic perspective on the company, its culture, and the broader society (Stuhl, 2014). Moreover, they must possess the communication attributes required to transmute user experiences into transformative engagements, catalyzing shifts in perceptions (Pallister, 2015).

The latest studies examining the performance of Chief Design Officers (CDOs) in organizations (Dalrymple et al, 2020; Quint et al., 2022) define their assertion as aspirational yet ambivalent. Guided by three central tenets: user experience, organizational dynamics, and the design team, the CDO assumes a role that transcends mere execution. These studies further underscore that the portfolio of CDO responsibilities is extensive yet quantifiable, emphasizing cross-functional collaborations and advocating for leadership that fosters collective efficacy over individual prowess. Moreover, these studies highlight the paradoxes between business and design evident in CDO practices and efforts.

4 Philips Case Study

4.1 Corporate Transformation at Philips Design

The history of design at Philips traces back to 1925 under the stewardship of Louis Kalff, followed by Rein Veersema, Knut Yran, Robert Blaich, and Stefano Marzano. In 2022, the CDO Sean Carney was leading a team of 700 designers, spread over 13 studios in America, Europe, and Asia, merging design disciplines such as User Experience Design, Design Strategy & Insights, Product Design, Brand & Communication Design, Design Business Leadership, DesignOps (Jacob & Carney, 2022).



Fig. 1. Philips design leaders (adapted from Philips, 2015)

Within the corporate milieu, the surge of competition and the emergence of Asian economies in the late 1980s prompted Philips to lose market share by 1990 (Fig. 1). This imposed a corporate strategy shift, epitomized by the “Centurion” program implemented by then-CEO Jan Timmer. This program catalyzed unit reorganization and strategic realignment, marked by the enhancement of managerial capabilities, the pursuit of novel opportunities, employee empowerment, and communication optimization (Reuters, 1998).

In 1991, Timmer appointed Stefano Marzano as the Senior Design Director of Philips Design, entrusting him with design management responsibilities that entailed direct collaboration with two top-tier management teams: Professional Products and Consumer Products. These teams convened biannually with the Board of Directors to guide the corporate strategy (Beckwith 1994). Aligned with both management teams, Marzano gleaned insights across diverse organizational domains, influencing top-level corporate management and fostering strategic thinking. Simultaneously, Marzano ensured the resources vital for Philips Design by establishing a novel strategy rooted in design-led research, ushering in new methodologies and lexicons (Kyffin & Gardien, 2009). This transformed Philips Design into one of the world’s most recognized studios, placing designers in a prominent niche within the design community (Gardien & Gilsing, 2013). Functioning as a studio, Philips Design provided design services across several sectors and groups of the Philips conglomerate.

However, Turner (2017) suggests an incongruity within Philips Design’s organizational structure. Despite its esteemed reputation, a disconnection persisted between design and its business objectives. Operating with roughly 500 employees, Philips Design’s financial health depended on internal expenses, rendering its impact on ROI [3] challenging to discern. Consequently, a transition was imperative, where the design would transition into a cost center (to attain break-even [4]), bolstering alignment with Philips’ financial and strategic goals.

This perspective dovetailed with the strategic focus of Philips’ Frans van Houten, the CEO of Philips from 2011 to 2022, who introduced the “Accelerate” program at the beginning of his tenure. Van Houten’s vision entailed shifting from a functional organization to an end-to-end collaborative network driven by processes. This transformation aimed to deliver innovative and sustainable products at a reduced cost, prioritizing customer-centricity, and local market satisfaction (Philips, 2012).

This vision engendered the metamorphosis of design into an integrated function across Philips' organizational frame. Philips Design embarked on the Design Function Change Program, branching into four groups: three aligned with Philips' principal sectors (lighting, healthcare, and lifestyle) and Group Design focused on design, branding, innovation, and associating with Philips Research, the strategic group, and other company entities (Gardien & Gilsing, 2013). The sector-specific team segmentation allowed designers to deepen their expertise.

According to these authors, this transition precipitated the inception of the CDO role for each of Philips' dimensions. This alignment aimed to harmonize with other integrated C-suite functions (CMO, CTO, and CFO [5]). CDOs report directly to their respective sector CEOs and the company's overarching CDO. They assume ownership of design budgets and play structural roles within innovation and branding frameworks.

As CDO at Philips until the end of 2011, when he stepped down from his role, to Stefano Marzano reported (Donoff, 2011):

- Rogier van der Heide, CDO of Philips Lighting and Vice President of Philips Design from 2010 to 2014 (Philips, 2010; Donoff, 2014; Heide, 2020);
- Sean Hughes, CDO of Philips Healthcare and Vice President of Philips Design since 2011, subsequently becoming CDO of Philips Design Healthcare (IDSA, 2014; Philips, 2020);
- Sean Carney, CDO of Philips Consumer Lifestyle. By the end of 2011, he succeeded Stefano Marzano as CDO at Philips, subsequently emerging as the leader of the entire organizational design community (Montgomery, 2011; Turner, 2017; Philips, 2017).

The sectoral cross-pollination culminated notably during CDO Sean Carney's tenure, evolving into an era of interwoven experiences and co-creation. During this phase, the design introduced explicit metrics to assert its value within Philips' business model. Gardien & Gilsing (2013) reference the implementation of a model tailored to the organization—the Design Function Maturity Grid, depicted in Fig. 2. This framework facilitated the integration and development of design functions, characterized by nine distinct and categorized vectors encompassing:

- Design competencies and culture (Design as Capability).
- Strategies and processes linking design with the nexus of vision and reality (Design as Approach).
- Design's specific contributions in creating organizational value (Design as Outcome).

These novel metrics enabled monitoring the maturity level and mapping the design function progress in each sector. The framework tracked inter-functional team relationships and external business partnerships, all within an ever-evolving optimization process (Gardien & Gilsing, 2013). The authors further enumerate outcomes such as annual communication and shared reviews, meeting conclusions with sectorial management, and cross-sectoral competency development practices. The freedom of design teams to select differentiators, subsequently establishing goals and tracking progress, also remains a hallmark.

KEY DIFFERENTIATORS	MATURITY LEVEL 1: WITHIN FUNCTION BUT IN CONTEXT	MATURITY LEVEL 2: INTEGRATED AND ALIGNED WITH OTHER FUNCTIONS	MATURITY LEVEL 3: MEASURABLE IMPACT ON BUSINESS RESULT AND OTHER FUNCTIONS	
DESIGN AS APPROACH	DESIGN STRATEGY	<ul style="list-style-type: none"> Design strategy leads to design objectives, KPI's, and improvement programs. 	<ul style="list-style-type: none"> Integral part of all short, medium, and long-term business objectives. 	<ul style="list-style-type: none"> Measurable influence on the long-term vision and direction of the company.
	DESIGN PROGRAMMING	<ul style="list-style-type: none"> Design programs are derived from business programs. Prioritization based on business needs. 	<ul style="list-style-type: none"> Participation in business programming and road mapping leads to design programs. Prioritization based on potential return. 	<ul style="list-style-type: none"> Integral part of management decision process. Measurable influence on the direction of business programs.
	DESIGN DELIVERY	<ul style="list-style-type: none"> Design process defined. Resourcing within the function. Receiving design brief. 	<ul style="list-style-type: none"> Design process and resource planning integral part of business process and footprint business. Ownership of briefing process. 	<ul style="list-style-type: none"> Design delivery strategy based on measurable effectiveness and efficiency and supports future value creation.
DESIGN AS OUTCOME	DESIGN TO INNOVATE	<ul style="list-style-type: none"> Programmed contribution to innovation projects. Aligned with innovation themes. 	<ul style="list-style-type: none"> Front-end activities ensuring uptake. Design as co-author of innovation roadmap and research themes, including front-end. 	<ul style="list-style-type: none"> Design and design thinking contributes to redefinition of existing markets and categories. Pushing new paradigms, e.g. ecosystems.
	DESIGN TO DIFFERENTIATE	<ul style="list-style-type: none"> Contributing to the creation, management, and orchestration of total brand touch points per category. 	<ul style="list-style-type: none"> Design facilitates the coherency of brand expression across all touch-points. 	<ul style="list-style-type: none"> Design thinking contributes to defining the direction of the brand strategy and identity.
	DESIGN TO OPTIMIZE	<ul style="list-style-type: none"> Contributing to simplifying and value engineering design solutions. 	<ul style="list-style-type: none"> Design facilitates creation of optimizing platforms, roadmaps, and standardization on a program level. 	<ul style="list-style-type: none"> Design thinking contributes to optimized processes, portfolios, and value chain (end to end).
DESIGN AS CAPABILITY	DESIGN SKILLS	<ul style="list-style-type: none"> Access to all design expertise (comm. prod. serv...). Talents identified. Job rotation within the organizational entity (sector). 	<ul style="list-style-type: none"> Internal and external design expertise leveraged in projects. Succession planning leads to new design leaders. Job rotation within the function (company). 	<ul style="list-style-type: none"> World class design expertise. Talent management extending to partners and universities. Design thought leadership recognized as benchmark.
	COMPETENCE DEVELOPMENT	<ul style="list-style-type: none"> Areas for best practice defined. Relevant design information available and accessible. 	<ul style="list-style-type: none"> Internal and external collaboration increases competence and knowledge level. Knowledge dissemination embedded in w.o.w. 	<ul style="list-style-type: none"> Design competence recognized as benchmark. Design knowledge integrated in business knowledge management, contributing to learning organization.
	CULTURE FOR DESIGN	<ul style="list-style-type: none"> Little awareness in the organization of the full potential of design to create business value. Design seen as costs. 	<ul style="list-style-type: none"> High awareness that investments in design are essential for NPS, brand equity, and innovation. 	<ul style="list-style-type: none"> Design provides inspiration at a strategic level, while supporting direction setting and the creation of meaningful solutions on an operational level.

Fig. 2. Design function maturity grid (Gardien & Gilsing, 2013)

In recent years, Philips transitioned from a diversified technological conglomerate to a healthcare-focused entity driven by technological value (Philips, 2016, Philips 2020). The escalating emphasis on human-centric approaches and healthcare innovation mirrors a more design-centric perspective, exemplified by Philips' contemporary value creation principles depicted in Fig. 3.



Fig. 3. Philips' 2019 strategic orientation (Philips, 2020)

4.2 The Philips CDOs: Stefano Marzano

Stefano Marzano held leadership roles within Philips Design from 1991 to 2011, assuming various positions including Senior Design Director (Beckwith, 1994), Managing Director (Marzano, 2000), CEO and Chief Creative Director of Philips Design (Marzano, 2005), and CEO of Philips Design and CDO of Philips (Joziassse, 2011; Gardien & Gilsing, 2013).

His professional journey began in 1970 at Makio Hasuike Design in Milan. Subsequently, he joined Philips-Ire as a senior designer. During the same period, he co-founded Broletto Design and ascended to lead Philips Data Systems & Telecommunication in 1978 (Marzano, 2018). Apart from his notable 20-year tenure at Philips, Marzano also served as CDO at Electrolux between 2012 and 2014, and in 2015, he became the Ambassador for the Design for Europe initiative (Marzano, 2015).

Born in 1950, with academic qualifications (Politecnico di Milano, 1978) and professional background as an architect in Italy, Stefano Marzano coexisted within a cultural milieu that witnessed the emergence of radical groups like Archizoom [6] and Memphis [7]. During this era, characterized by their distinctive expression, these post-modernist movements propagated a social message of design heterodoxy, rooted in expression, emotion, and the significance imbued by artifacts (Verganti, 2006). Distinguished designers such as Marco Zanuso, Ettore Sottsass, and Michele de Lucchi spearheaded the creation of technological artifacts. Their presence symbolized a symbiotic relationship and discourse between top management and designers that challenged the industrial status quo (Radice, 1995; Lohmann, 2019; Pinheiro & Franqueira, 2021). In tandem with his business pursuits, Marzano embraced roles that championed management and business strategy through design and within the academic community. Notably, his path intersected with designers like Mario Bellini, Andre Branzi, Clino Castelli, Michelle De Lucchi, and Sottsass at Domus Academy (Beckwith, 1994; Marzano, 2018).

In 1991, succeeding Robert Blaich, Stefano Marzano assumed the role of Senior Design Director at Philips Design. He imbued the company with his principles, coalescing into what he termed “Responsible Design”, and is connected with the post-modernism Italian culture. This ideology, aligned with corporate social responsibility, was underpinned by three pillars: people, profit, and the planet. These principles encapsulate the ethical impact that design could have on the future and the organizational responsibility in shaping it (Beckwith, 1994; Marzano, 2018). Marzano (2000) theorized that to create meaningful products, designers, and organizations needed to comprehend their audience’s latent needs, transforming into ethical and commercially successful entities. This

ethical awareness and design accountability were among the messages Marzano adeptly transposed and integrated into Philips, thus influencing the global corporate landscape. This ethos is reflected in Philips Design's 1991 mission statement: "To create a harmonious relationship among products, people, and their environments, both natural and man-made." (Marzano, 2000).

Ethics, sustainability, and the ability to infuse technology with a human touch by using design as the main creative force in product development was the main theme of one of his most striking speeches. In 1992, during the 17th World Design Conference organized by the International Council of Societies of Industrial Design (ICSID), he delivered a landmark speech titled "Flying over Las Vegas." In this statement, Marzano underscored the interdependence inherent within the corporate fabric, processes, products, and above all, design. This concept became recurrent in his Philips endeavors: "High Complexity design is no longer a case of clever individual or teams creating products in splendid isolation, but of multidisciplinary organizations or networks creating 'relevant qualities' and 'cultural spheres'." (Marzano, 1993, p.17).

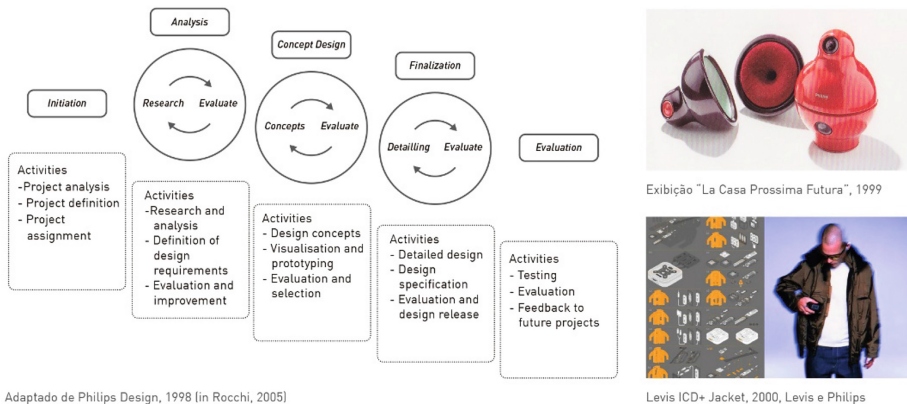


Fig. 4. High Design strategy and outcomes (data collected by the authors)

Marzano's clear perspective was widely spread, enabling him to collaborate with multidisciplinary teams and to encourage them to envision a visionary future for prevailing technology, rather than merely shaping a form for technological artifacts (Fig. 4). To facilitate this, he devised and enacted the "High Design" strategy, rooted in research and human-centric focus. This strategy synthesized measurable and immeasurable values which the design function could contribute to the company, employing a collaborative structure to foster conceptual development and new product creation (Walton, 1994). Moreover, inter-functional or multidisciplinary team relationships served as a resource for refining internal management practices and discerning their potential in addressing strategic issues and fostering corporate cultural shifts (Beckwith, 1994).

The vision of a humanized technology was translated into a series of futuristic projects under the High Design Strategic Futures framework. This approach proved to be an effective avenue for projecting a vision of the future, Philips' technological direction, and anticipating meaningful usage contexts, becoming a strategic pillar for the design

function. These projects were communicated through exhibitions, videos, and publications, ensuring broad dissemination of future visions, catalyzing new partnerships, opening sales channels, and trendsetting. Thereby, they were tilling what Marzano referred to as “memories of the future” in observers’ minds, potentially driving new aspirations and desires (Marzano, 2005).

In this exercise of foresight, Marzano also introduces the Design Probes program, which tracked emerging developments across five principal domains: politics, economics, environment, technology, and culture. The futuristic outcomes of this investigation were harnessed to pinpoint systemic shifts that could impact subsequent business trajectories, lead to new plausible avenues of development, test potential outcomes, and provoke discourse among stakeholders (Fairs, 2007).

Conversely, his visionary outlook positioned him as a pioneer in embedding the concept of social design within Philips. This was grasped through the implementation of the Philanthropy by Design initiative (afterward designated as Design for Empowerment), with the explicit aim of harnessing the creativity and approaches of designers to devise cost-effective and easily accessible solutions that would benefit the most vulnerable strata of society (Philips, 2015).

4.3 The Philips CDOs: Sean Carney

Sean Carney, the latest Chief Design Officer (CDO) of Philips, has traversed a prolific journey within the realm of design. After graduating in industrial design from Birmingham City University (n.d.), Carney’s career journey commenced in 1987, subsequently culminating in leadership roles that have wielded substantial outcomes for various companies. As a design leader, he advocated strategies such as “Consumer Insight” and “Creative Foresight,” along with design management and brand-centered perception, delivering tangible results for organizations like Electrolux, Grow, Assa Abloy, Iittala, and Hewlett-Packard (Girling & Carney, 2017).

Carney’s association with Philips coincided with a transformative period characterized by corporate changes and arising opportunities in digitalization and innovation. As mentioned, his arrival marked a strategic realignment that centralized design within Philips, which was coupled with an intensified emphasis on healthcare innovation, exemplified by his leadership in Healthcare Transformation Services in 2017 (Dutch Design, 2020).

Philips’ forward-looking commitment to healthcare, fueled by digital transformation, was manifest in the vision of then-CEO Frans van Houten, wherein data from a vast patient pool would be harnessed to inform product development. To resemble to this vision the design team harnessed emergent trends to construct a digital mapping that anticipated potential impacts across business domains. Through collaborative sessions, these scenarios were presented to the Executive Committee, ultimately leading to the establishment of a health-focused Cloud domain in 2017 (Turner, 2017). This innovative step and design initiative involved real-time data collection from diverse users, facilitating a profound understanding of patient and user experiences.

This initiative also stands as an example of how by building upon the foundation laid by his predecessor, Carney orchestrated the transformative “Cocreate” strategy, encapsulating a design thinking-centered approach. This strategic shift not only integrated

design thinking principles within the organizational fabric but also represented a visionary response to the evolving digital landscape (Philips, 2020). The strategic pillars of this approach are explicit in Fig. 5.

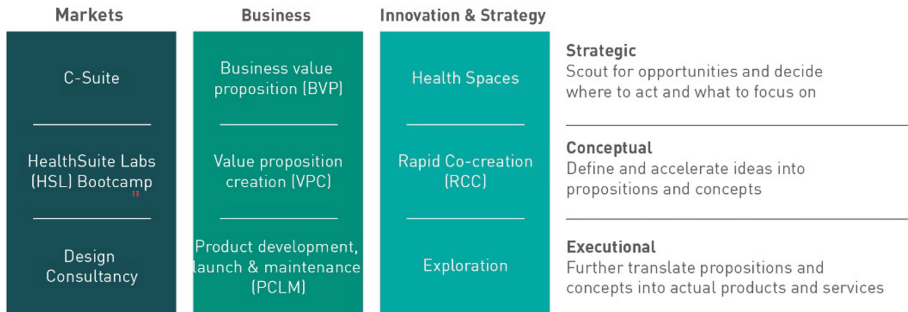


Fig. 5. The strategic, conceptual, and operational levels of Cocreate (Philips, 2020)

The Cocreate strategy, as envisaged by Carney, is underpinned by three essential vectors (Girling & Carney, 2017; Turner, 2017; Philips, 2017):

- **Envisioning Ecosystems:** This facet involves envisioning comprehensive solutions that transcend the confines of individual services or products. Instead, Carney's vision is characterized by interconnected experiences and systems, wherein, the focus is on the user experience as well as an integrated solution that also includes the immediate environment and digitally available data in real-time.
- **Nurturing Long-term Relationships:** Carney's strategy embraces the power of design to reshape paradigms and foster novel methodologies, such as co-creation with clients and corporations. This involves the implementation of interactive actions tailored to specific contexts or the establishment of global creative hubs that foster agile and focused responses.
- **Co-creating solutions with internal and external teams:** Central to Carney's approach is the integration of design thinking, facilitating accelerated co-creation within Philips. The collaboration spans both internal and external teams, harnessing design thinking principles to enhance co-creation potential.

This strategy seamlessly integrates design thinking as a strategic element for human-centered innovation, amplifying futuristic concepts. These concepts serve to identify emerging business domains and bolster relationships with potential clients (Gardien & Gilsing, 2013; Philips, 2020). Carney sheds light on the evaluation of the Cocreate program, which is seen by the CEO, as a way to enhance top-level engagement with potential clients by harmonizing design thinking principles with Lean and Agile concepts (Turner, 2017).

Throughout his tenure, Carney's commitment to design with intrinsic meaning, intention, and purpose remained steadfast (Fig. 6). The integration of technological advancements with human-centered perspectives was encapsulated in the slogan "Innovation and You" (Parsons, 2013). This marked a shift from a consultancy-oriented paradigm to an inclusive and impactful design function, culminating in the transformation of Philips

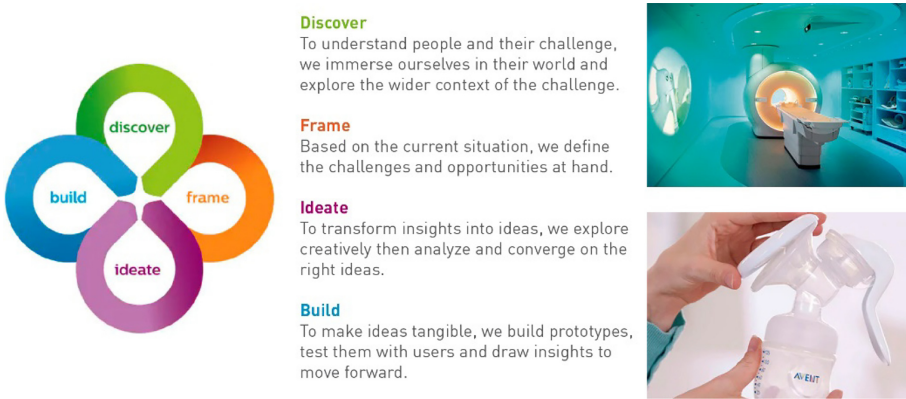


Fig. 6. The Cocreate strategy and outcomes (data collected by the authors)

Design into the Philips Experience Design, underpinning a transition from product-oriented design to holistic ecosystem-centric design (Gardien & Gilsing, 2013; (Jacob & Carney, 2022).

Carney’s approach championed empathic design, uniting problem solvers, designers, engineers, and end-users. This approach fostered true innovation by minimizing misinterpretations and fostering contextual understanding. The Experience Design team, renamed in 2019 to mirror Carney’s design ethos, assumed responsibility for post-pandemic healthcare challenges, devising pragmatic solutions empowered by deep engagement with clinicians and patients (Maltha, 2022).

As Philips’ journey evolved, so did its slogans, with “Innovating with Purpose” emerging in 2020. In the same Philips boasts a design team exceeding 400 members, representing 35 nationalities, stationed across 11 design studios globally—spanning from the Netherlands’ headquarters to Asia and the USA (Philips, 2020).

Looking ahead, Carney envisioned a future driven by data-enabled design, guiding creative decisions and personalizing experiences through software-enabled hardware development. Philips Design Experience team had in 2022, 700 designers spread over 13 studios, merging design disciplines such as User Experience Design, Design Strategy & Insights, Product Design, Brand & Communication Design, Design Business Leadership, and DesignOps (Jacob & Carney, 2022).

The culmination of Carney’s legacy elevated design to an indispensable facet of Philips’ strategic identity. The team’s accomplishments were underscored by 182 design awards for the Philips Brand in 2021, and the recognition as “Red Dot: Design Team of the Year” in 2022 (Maltha, 2022).

In a speculative context, it is hypothesized that Sean Carney’s departure from Philips could potentially have taken place in 2022. This conjectural scenario gains traction from ongoing interviews conducted within the scope of Ph.D. research. Importantly, Carney’s LinkedIn profile distinctly reflects his departure, indicating that he left Philips at the conclusion of 2022. He expresses gratitude to his team and briefly reminisces about significant moments and personal connections during his tenure and identifies himself as the “Former Chief Design Officer & Business Leader Healthcare Transformation

Services at Philips” (Carney, 2023). Although these sources might not be considered firmly established scientific evidence or officially reported by Philips, the tone of farewell conveyed by the CDO himself and the evolving environment within Philips may warrant consideration.

5 Insights Gained from Philips Case Study

5.1 A Paradigmatic Analysis of Philips' Context and CDO Impact

Moving beyond perceiving design as merely a collection of tools, competencies, or epistemologies, this article advocates for a transition toward investigating its role as an integrated organizational strategy. This shift prompts a more focused exploration of the strategic influence wielded by executive design leaders and the broader impact on the design function within the organization. Through a meticulous analysis of the cultural and strategic “footprint” left by each of Philips' design leaders, as depicted in Fig. 7, a comprehensive understanding emerges of the company's evolutionary trajectory. Most importantly, it illuminates the intricate interplay and mutual enhancement of these leaders' visions, resulting in a contemporary tapestry where design permeates as an all-encompassing strategy throughout the entire organization.

This mapping of Philips' design legacy and the in-depth examination of figures like Stefano Marzano and Sean Carney, without neglecting the intersection with CDOs like Rogier van der Heide and Sean Hughes, positions Philips as a paradigmatic case study. This distinction arises from its adept integration of design principles at the executive echelon. Such integration is made possible by the collective narratives of the five CDOs, converging harmoniously within the framework of Philips.

Conversely, this analysis has facilitated the compilation of the evolutionary progression of roles and responsibilities, mindsets, competencies, and strategies applied by Philips' global CDOs Stefano Marzano and Sean Carney, as illustrated in Fig. 8. This prompts reflection on the evolving impact of design within Philips, engaging in a dynamic discourse with its CDOs.

This bibliographic compendium does not seek to establish a comparison, but rather an evolutionary analysis of two CDOs who, in distinct contexts, introduced novel visions to the corporate fabric of Philips. Both have made distinct contributions to crafting a model that assesses the maturity of design within the company, conveyed from a process of self-reflection to comprehend the paradigmatic shifts that design introduces along the timeline. This assessment is underscored through the cross-referencing of Marzano and Carney's activities with Philips' annual reports of the past two decades, revealing how each of their visions has been imprinted on the brand's promises, epitomized by slogans such as “sense and simplicity” and “innovating with purpose” respectively.

On a different note, Philips' strategic orientation in 2019, as depicted in Fig. 3, demonstrates how design is not only ingrained in its human capital but also the structural framework of a strategy centered on humanity, innovation objectives, and the creation of value-added solutions.

More broadly, the investigation of the CDO influence within the context of Philips' organizational landscape yielded enlightening findings that underscore the strategic significance of design. As part of a doctoral inquiry focused on the role of design leaders,



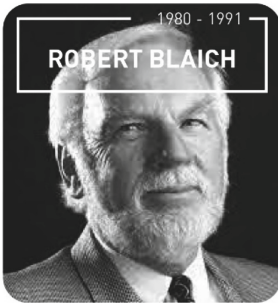
Kalf assumed the role of overseeing the Advertising division, entrusted with the mission of assembling the entirety of Philips' promotional material and reinvigorating it. He equally provided his expertise in shaping the form, color, and material composition of the inaugural radios, while also contributing to the conception of iconic architectural ventures under the Philips banner.



Veersema discerned that as mass production took precedence within the company, design could no longer remain an individual expression; rather, it evolved into an anonymous outcome arising from collaborative team efforts. This transformation allowed him to establish design as a discipline.



Yran succeeded in cementing industrial design and corporate identity as the core responsibilities of the design team, while concurrently advancing internationalization through the cultivation of time-honored design competencies.



Blaich ushered in novel processes and enlisted external design consultants to impart fresh proficiencies to the team. He held the conviction that the design manager's duty encompassed the instillation and fostering of a cultural consciousness regarding design, and in his capacity as a facilitator, he imbued the company with the essence of design.



Marzano orchestrated the "High Design" strategy that revered human-centric design, environmental considerations, and corporate needs, all through a multidisciplinary approach. He blazed trails in crafting futuristic scenarios and ushered in the notion of social design within Philips.



Under the stewardship of the latest CDO, Sean Carney, design at Philips facilitated the transformation from a product-oriented entity to an experience-driven organization. This transition harnessed the full potential of IoT, Big Data, and the offerings of digital ecosystems for users' maximal benefit.

Fig. 7. The impact of Philips Design Leaders (data collected by the authors)

both qualitative and quantitative data were analyzed to comprehensively evaluate the impact of CDOs, particularly Stefano Marzano and Sean Carney, on Philips' evolution.



STEFANO MARZANO

 1991 – 2011

Senior Design Director | Philips Design
 Managing Director | Philips Design
 CEO | Philips Design & CCD | Philips
 CEO | Philips Design & CDO | Philips



SEAN CARNEY

 2011 – 2022

CDO | Philips Consumer Lifestyle
CDO & Executive Vice President | Philips
 GM Business Leader Healthcare
 Transformation Services (HTS) | Philips

CONTEXT

Design Context at Philips



Brand Promise:
Sense and Simplicity (Philips, 2011)

RESPONSIBILITIES

- _ Leadership of Philips Design's global design community;
- _ Leading cross-functional or multidisciplinary teams, employing futuristic strategies to create value;
- _ Oversight of Philips Design's design budget.

MINDSET

- _ Advocates corporate social responsibility;
- _ Embraces the 3 P's (people, profit, planet) – sustainability, value creation, and human focus, which he terms as "Responsible Design";
- _ User understanding, integration of innovative and multidisciplinary skills, and incorporation of design throughout the execution process.
- _ Views design as a generator of sustainable value for both the company and its consumers.

STRATEGIES AND ACTIONS

- _ High Design Strategy;
- _ Design Probes;
- _ Philanthropy by Design.

CONTEXT

Design Context at Philips



Brand Promise:
Innovating with purpose (Philips, 2020)

RESPONSIBILITIES

- _ Leadership of Philips' global design community;
- _ Leadership through the infusion of Design Thinking and User-Centered Design approaches across all of Philips' businesses;
- _ Creation and orchestration of the brand experience.

MINDSET

- _ Advocates the imperative of cultivating ecosystems, not solely products;
- _ Nurtures enduring relationships with external partners;
- _ Collaboratively crafts solutions with both internal and external teams through design thinking;
- _ Views design as the advocate for users, facilitated by global and multidisciplinary teams;
- _ Considers design as a generator of value for individuals and aligned with the financial and strategic objectives of the entire enterprise.

STRATEGIES AND ACTIONS

- _ Co-Create Strategy;
- _ Design for Empowerment.

Fig. 8. The interplay between Stefano Marzano and Sean Carney (data collected by the authors)

The comprehensive data analysis reaffirms that the incorporation of design principles into the executive echelons of Philips has engendered a remarkable shift, propelling design from the periphery to a central strategic domain. The empirical data succinctly exemplifies the salience of the CDO's role in cultivating a design-centric ecosystem that permeates all levels of the organization.

Examining the design language system of Stefano Marzano within Philips, three pivotal principles emerged: radical empathy, humanized technology, and holistic vision. This conceptual triad converged and matured under the Ccreate platform exploited by Carney, serving as a dynamic framework for synergy among design studios, internal stakeholders, and external agents. The CDOs' contributions have fostered an environment where design thrives as a multifunctional asset with a clear philosophical approach, which transcribes their legacy and footprint in Philips.

Regarding organizational transformation, it is discernible that CDOs instigated significant shifts, elevating design to a core discipline. Stefano Marzano and Sean Carney's leadership facilitated the emergence of relational bonds between cross-functional teams and design culture, amplifying the organizational propensity for strategic thinking. The CDOs orchestrated a symbiotic relationship between design and top management, as manifested in the Philips Design, consequently catalyzing a holistic assimilation of design's tenets.

While the present study chiefly centers on the affirmative impacts of CDO leadership, it is imperative to note that this exploration did not disregard nuances that didn't unequivocally align with the hypothesis. Statistical analyses provided insights into multifaceted dynamics; nevertheless, the preponderance of evidence resoundingly substantiated the pivotal role of CDOs in shaping Philips' design landscape.

Furthermore, the inquiry ventured into the CDOs' transformative responsibilities as drivers of innovation, strategic cohesion, and collaborative empowerment. Stefano Marzano and Sean Carney effectively engineered an environment wherein design strategies permeated core decision-making spheres, engendering a holistic cultural shift.

5.2 The Impact of Design Leadership by Marzano and Carney at Philips

This investigation underscores that CDOs Marzano and Carney have indelibly etched their visionary imprints on Philips. Their strategic orchestration facilitated the convergence of design with the organization's overarching mission, redefining corporate paradigms, and invigorating innovation. In answering the questions regarding this study, some key and holistic insights were achieved.

The contours of design leadership of Philip. Findings from empirical investigations into various organizations, including Philips and its lineage of design leadership, indicated that the convergence of design and business objectives has become a central tenet of progressive organizations. The data demonstrated the capacity of design leadership to transcend the confines of aesthetic enhancement and permeate the fabric of strategic decision-making. This was corroborated by prominent design executives' testimonies from different sources, such as Stefano Marzano and Sean Carney, elucidating the symbiotic relationship between design and organizational strategy.

Philips CDOs' responsibilities, skills, and mindset. The data unveiled a prevailing trend in organizations toward recognizing the pivotal role of design in driving innovation and differentiation. This trend is substantiated by empirical evidence from notable case studies, including Philips, wherein the establishment of Chief Design Officers and analogous leadership roles emerged as a strategic response to dynamic market demands.

These roles spearheaded design-driven innovation, fostering a culture of creativity that transcended traditional functional boundaries.

Furthermore, the analysis delved into the transformative influence of design leadership on cross-functional collaboration and interdisciplinary synergy. The results underscored that organizations embracing design leadership exhibited heightened interconnectivity between design, engineering, marketing, and other pivotal functions. This synergistic collaboration, facilitated by design leaders, nurtured an ecosystem wherein multifaceted expertise converged to create holistic solutions, ultimately enriching user experiences and propelling innovation.

Philips CDO methodological and strategic legacy. Notably, the investigation highlighted the significance of incorporating empathy-driven methodologies, such as Design Thinking, in organizations' innovation endeavors. These methodologies, championed by design leaders, facilitated the alignment of user-centricity with strategic objectives. The prevalence of such methodologies in the discourse of design leadership underscored their resonance with contemporary organizational paradigms, manifesting in tangible product and service innovations.

6 Discussion and Conclusions

The comprehensive exploration of design leadership and its ramifications within organizations has yielded valuable insights that contribute to our understanding of the intricate interplay between design, innovation, and strategic transformation. This section delves into the relationship between the obtained results and the insights gained, elucidates the convergence with previous studies, investigates unexpected findings, proposes hypotheses for further investigation, and concludes with a synthesis of the principal points.

The central hypothesis of this study posited that the integration of design leadership, particularly through roles like CDOs, catalyzes strategic innovation and organizational transformation. The results provide substantial empirical support for this hypothesis, substantiated by the other case studies within the scope of the Ph.D. and scholarly literature. Notably, the maturing of design leadership roles, as observed in organizations such as Philips, aligns with the hypothesis that design leadership engenders cross-functional collaboration, innovation, and alignment of design with overarching business strategies.

The findings of this investigation align with prior studies that emphasize the pivotal role of design leadership in driving innovation. Marzano's and Carney's accounts of design leadership at Philips, where the emphasis on empathy-driven methodologies, akin to design thinking, corresponds with existing literature underscoring user-centric approaches in innovation (Brown, 2009; Mozota & Amland, 2020). Moreover, the integration of design leadership with organizational strategy mirrors studies that highlight the necessity of strategic alignment to foster innovation (Verganti, 2017; Quint et al, 2022).

The Philips case study affirms, through the contributions of its CDOs, that design activities cultivate informed and discerning management agents. This multifunctional effort aligns with the essence of design. This validation is congruent with the delineated responsibilities of the CDO as a driver of organizational transformation, as articulated by Dalrymple et al (2020):

- Transformation of user experience through innovative business models, enhancing user outcomes and experiences, and fostering design consistency across the organization.
- Dissemination of user-centric design practices, representing design in the C-suite and management board.
- Transformation of design teams by fostering collaboration across functions.

Juxtaposing these transformative attributes with Fig. 8 illustrates that both Stefano Marzano and Sean Carney championed and implemented them, engaging in dialogues with Philips' CEOs.

Exploring Unexpected Results

While the data generally support the integration of design leadership leading to organizational success, it's not uniform. Instances were identified where challenges arose due to misalignment between design strategies and corporate goals, highlighting the need for nuanced integration strategies guided by contextual factors and organizational dynamics.

Philips stands as an exemplar of design's strategic and procedural levels. However, while projecting future visions or addressing inquiries like "How might we...?" once brought innovation, these are no longer differentiating factors today. As foundational principles of design thinking permeate business domains, pioneers are required in their evolution. Similarly, this concept extends to leadership closely integrated with top management, prompting the question: if a company positions design within the C-suite, elevating its impact to the level of finance (CFO) or operations (COO), could this potentially entail the integration of the CDO into the Executive Committee?

Philips' Executive Committee comprises Vice Presidents holding C-suite or leadership positions, with no representation from CDOs. This observation implies a broader and more pervasive role for design. While not within the scope of this article's analysis, this situation prompts inquiries about potential disparities within the C-suite, which could offer opportunities for future investigations.

Additional unexpected divergences from the hypothesis further underscore the intricate nature of organizational dynamics and the necessity for nuanced implementation strategies. Future research could explore the interplay between organizational culture, leadership styles, and the effectiveness of design leadership to shed light on these variations. It could also underline the contemporary influence of the CDO within the corporate context.

Building on unexpected findings, future research could investigate moderating factors influencing design leadership's impact on innovation. For instance, hypotheses could explore how organizational culture mediates the relationship between design leadership and strategic innovation. Longitudinal studies could offer nuanced perspectives on design leadership's sustained influence.

In conclusion, this study underscores the transformative potential of executive design leadership within Philips, through the cases of Sean Carney and Stefano Marzano. Empirical evidence affirms that design leadership, epitomized by roles like CDOs, plays a pivotal role in driving innovation, fostering cross-functional collaboration, defining the function's philosophy, and aligning design with strategic objectives. Divergent outcomes in specific instances highlight the need for context-sensitive strategies and further analysis in a post-pandemic scenario. This investigation contributes to the discourse on design leadership's role in shaping organizational innovation and transformation, laying a foundation for future research and strategic decision-making.

7 Notations

[1] Philips: All references to Philips pertain to the entire Philips N.V. group and its subsidiaries. This group encompasses the Lighting segment of Philips (Philips Lighting N.V.), which became independent in 2017 and transformed into Signify N.V. in May 2018.

[2] Philips Design: All allusions to Philips Design refer to the design studio existing until 2011, the year in which design was integrated as a function within Philips.

[3] ROI: In financial terms, this abbreviation stands for Return On Investment, signifying the profit generated from an activity during a specific period, compared to the investment made in it (Cambridge, 2020).

[4] Break-even: From a financial perspective, break-even denotes the point at which a company starts generating as much revenue as it invested in a particular product, activity, etc. (Cambridge, 2020).

[5] C-suite: Represents the group of senior executives in a company, including CDO, Chief Marketing Officer (CMO), Chief Financial Officer (CFO), and Chief Operations Officer (COO), among others (Cambridge, 2020).

[6] Archizoom (1966–1978): A movement founded in 1966 by Andrea Branzi, Gilberto Corretti, Paolo Deganello, and Massimo Morozzi (Poltronova, 2017).

[7] Memphis (1980–1988): A movement established in 1980, with Ettore Sottsass, Aldo Cibic, Matteo Thun, Marco Zanini, Martine Bedin, Michele De Lucchi, Nathalie Du Pasquier, and George Sowden (Memphis, n.d.).

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