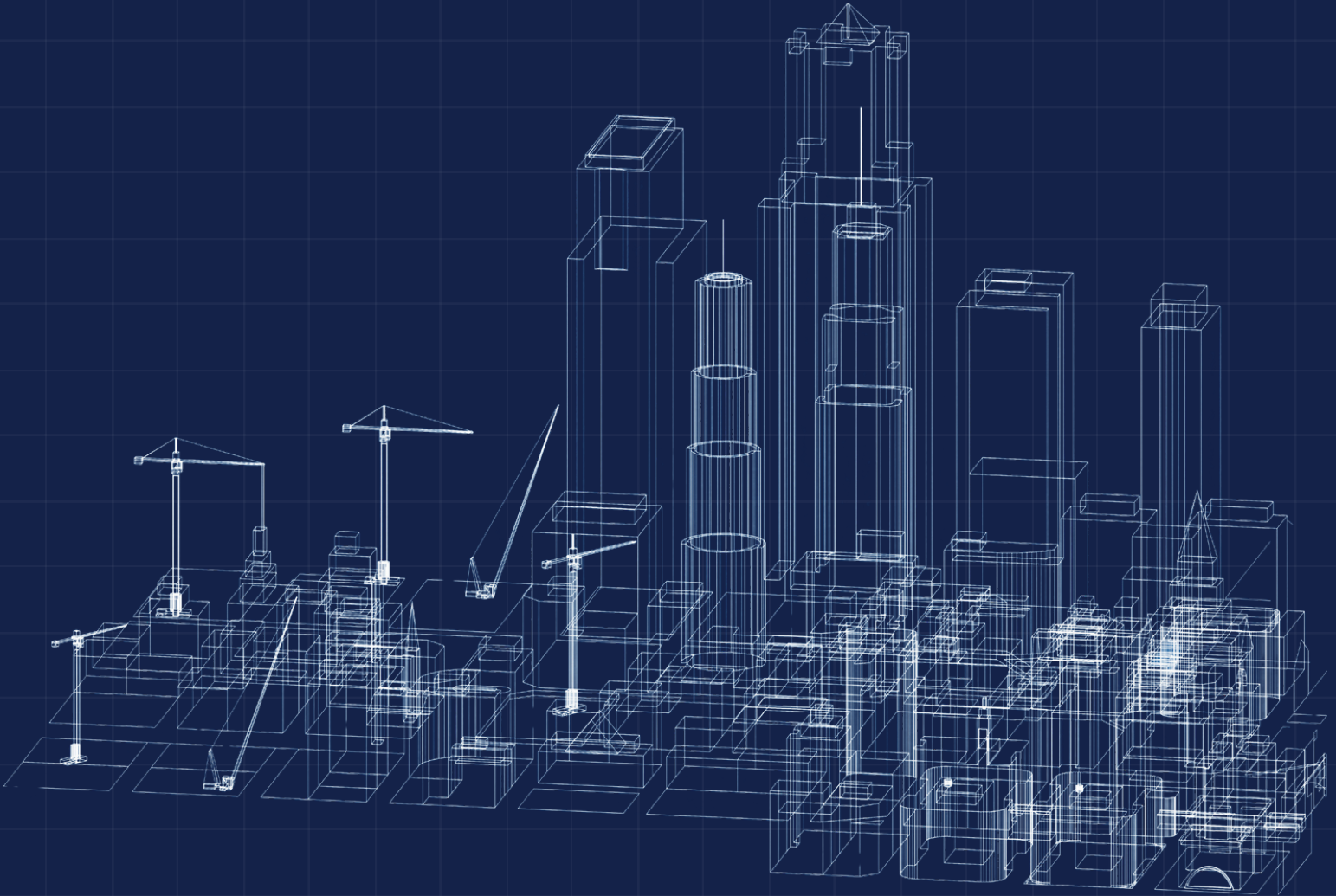




PLAYBOOK: **PRODUCT-AS-A-SERVICE**

HOW INDUSTRIAL COMPANIES BUILD
SCALABLE SUBSCRIPTION MODELS

INSIGHTS FROM 20 INDUSTRY LEADERS

Executive summary

The global shift toward Product-as-a-Service (PaaS) is no longer a theoretical ambition – it is a proven business transformation happening now. This white paper provides a strategic playbook for manufacturers navigating the transition from traditional equipment sales to recurring, service-based business models.

Drawing on insights from interviews with 20+ industry leaders and case-based analysis, the paper outlines eight critical dimensions of a successful PaaS transformation – from internal alignment and pricing strategy to sustainability, financing, digital infrastructure, and KPIs. Each section distills real-world practices, lessons learned, and frameworks that support a practical and scalable shift.

PaaS creates a win-win-win scenario for manufacturers, customers, and the planet. It delivers financial predictability, increases customer retention, and aligns with environmental goals through product longevity and circularity. But realizing these benefits requires strategic foresight, cultural change, and strong execution.

Adopting PaaS unlocks measurable business value across key dimensions:

- ✓ Stable, recurring revenue that supports long-term financial planning and increases company valuation.
- ✓ Lower customer acquisition costs and stronger retention through outcome-based relationships.
- ✓ Greater resilience and innovation via digital enablement, IoT integration, and usage-based optimization.
- ✓ Faster adoption and regulatory alignment with global trends toward circularity, carbon accountability, and transparency.
- ✓ Competitive edge through agile pricing, performance-driven contracts, and data-powered customer insights.

This guide is a must-read for industrial firms looking to unlock the full potential of recurring revenue models in an increasingly digital, data-driven, and sustainability-focused economy.

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1. Abstract

This whitepaper explores the transformative journey of manufacturing companies adopting Product-as-a-Service (PaaS) models, focusing on practical implementation within the B2B sector. While considering the perspectives of customers, the emphasis remains on equipping manufacturers with actionable insights and strategies to navigate this shift effectively.

The findings stem from interviews with experts from over 20 companies engaged in subscription-based offerings (as shown in the table on the right). These dialogues provided quantitative and qualitative data, highlighting critical metrics, best practices, and lessons for businesses transitioning to PaaS models. Additional insights were gathered through extensive research, including online resources, podcasts, and industry whitepapers. To respect the preferences of some interviewees and their companies for anonymity, all case studies and interviews have been anonymized.

The results have been synthesized into a framework covering eight dimensions: internal alignment, pricing strategy, sustainability, financing, contractual terms, sales and marketing, key performance indicators (KPIs), and digitalization.

Company Name	PaaS Offering	PS
A	Energy-as-a-service	
B	Surveillance-as-a-service	
C	Cinema-as-a-service	
D	Appliance-as-a-service	
E	Energy-as-a-service	
F	Printing-as-a-service	
G	Quality-as-a-service	
H	Fleet-as-a-service	
I	Cooling-as-a-service	
J	Tires-as-a-service	
K	Oil-as-a-service	
L	Compressed-air-as-a-service	
M	Carpet-as-a-service	
N	Brew-as-a-service	
O	Lighting-as-a-service	
P	Device-as-a-service	
Q	Items-as-a-service	
R	Farming-as-a-service	
S	Cooling-as-a-service	

Source: P2S Management Consulting

By focusing on these critical areas, the whitepaper provides a practical guide for businesses aiming to explore and implement the PaaS model. It equips companies with the tools and knowledge needed to navigate the transition and succeed in this rapidly evolving market.

Internal alignment and company culture:

- How to adapt the company culture towards a recurring service-mindset?
- What strategies to use to align all departments with the goals of the PaaS model?

Sustainability:

- What processes can we implement over the product's lifecycle?
- How does our PaaS model contribute to environmental goals?

KPIs:

- How do we use data to improve customers' satisfaction?
- What KPIs should we track to measure the success of the PaaS model?

Sales and marketing:

- How do we sell PaaS? What do we need to adapt when selling PaaS vs. traditional?
- How to maximize the chances of success in PaaS adoption?

Pricing strategy:

- Which pricing structure works best: fixed, usage-based, or a hybrid model?
- Which packaging makes sense? One-size-fits-all? Good-better-best?

Financing:

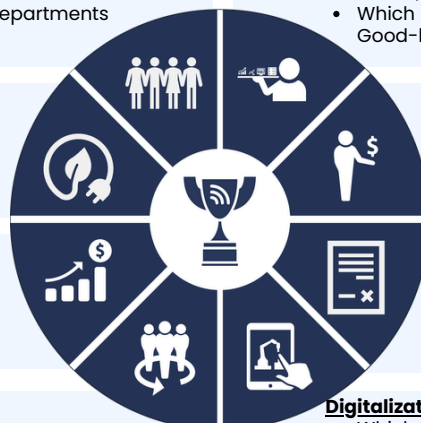
- Which type of financing structure to set up? Auto-financing, external partners?
- How the shift from Capex to Opex benefits the customers?

Contractual terms:

- How long should the contract duration be? What about follow-up contracts?
- What clauses specific to PaaS models need to be included in contracts?

Digitalization:

- Which digital tools or platforms (e.g., IoT, AI) are critical to automate and optimize operations?
- How to automate usage-based revenue collection and billing?



2. The origin and evolution of the PaaS concept

The term "Product-as-a-Service" has a rich history, deeply rooted in the concept of servitization. Introduced by Vandermerwe and Rada (1988) in the European Management Journal, servitization describes how companies integrate services with products to create added value and distinguish themselves in competitive markets. While early examples like Rolls-Royce's 'Power-by-the-Hour' model from the 1960s showcased the potential of this approach, its broad adoption only materialized after several decades.

The concept of charging based on outcomes rather than ownership began to gain substantial traction during the 1990s, notably with the rapid rise of Software-as-a-Service (SaaS). SaaS revolutionized the software industry by offering scalable, cloud-based solutions that replaced traditional one-time software purchases with subscription-based access. Companies like Salesforce, founded in 1999, were among the pioneers of this model, delivering software that could be accessed online without requiring on-premise installations or costly infrastructure. It allowed businesses to pay only for what they used, offering flexibility, automatic updates, and reduced IT overhead. Its success demonstrated the power of the subscription paradigm, setting the stage for its application in other sectors.

However, the manufacturing and industrial sectors were slower to embrace such models. Despite some pioneers like Rolls Royce that has been offering its aircraft engines since 1962 within the "Power-by-the-hour" scheme, manufacturers only began transitioning to 'as-a-service' in the early 21st century, driven by advancements in enabling technologies as discussed later. Today, PaaS has evolved into a business model where manufacturers, or to a lower extend their distributors, take full responsibility for ensuring the optimal performance of their products throughout their lifecycle. In this approach, providers handle all essential services, including maintenance, upgrades, and real-time monitoring, while customers pay a recurring fee. This arrangement shifts the focus from ownership to access, offering customers flexibility and reducing operational burdens.

A notable example is Atlas Copco, which has offered Compressed-air-as-a-Service since 2018. Under this model, customers no longer purchase air compressors; instead, they pay based on the cubic meters of compressed air they consume. Atlas Copco retains ownership of the equipment, ensuring its operation, guaranteeing uptime, and enabling clients to focus on their core activities while improving their sustainability. This is just one of many examples of companies embracing this shift, a trend that shows no signs of slowing down. The global Everything-as-a-Service market, including PaaS, grew from USD 535.77 billion in 2023 to USD 652.74 billion in 2024, reflecting a compound annual growth rate (CAGR) of 21.8%. This significant expansion underscores its ongoing and transformative impact on the industrial sector (The Business Research Company, 2024).

EVERYTHING-AS-A-SERVICE

21.8%
(CAGR)

The Everything-as-a-Service (XaaS) market is skyrocketing, growing from \$535.77 billion in 2023 to \$652.74 billion in 2024, marking an impressive 21.8% compound annual growth rate (CAGR) (The Business Research Company, 2024).

3. Spotlight on the manufacturing sector: Why now?

Traditional equipment sales are facing challenges across various industries, highlighting the need for a new approach to delivering value to customers. Several key factors underscore this shift:

- **Evolving customer demands:** Customers increasingly seek flexibility and reduced risk exposure. They no longer prioritize low product prices alone but focus on tangible outcomes from assets and demand greater transparency in Total Cost of Ownership (TCO).
- **Customers' strategic resource allocation:** With constrained capital and cash flow, customers must focus on critical investments. The 'as-a-Service' model transforms upfront capital expenses into manageable, predictable payments. This approach enables customers to access essential equipment and services while channeling resources toward their highest priorities.
- **Technological advances:** Breakthroughs in IoT, 5G, and Big Data have reshaped traditional business models, paving the way for enhanced digital solutions. These technologies not only refine PaaS offerings but often make them feasible. Digitalization is now a foundational requirement for the success of PaaS models, enabling smarter asset management and seamless service delivery.
- **Sustainability as a business imperative:** The global shift toward sustainability makes the 'as-a-Service' model particularly relevant. By retaining ownership of equipment, manufacturers have strong incentives to extend product lifespans, enhance energy efficiency, and minimize resource waste. These practices align with environmental goals, reduce emissions, and contribute to a circular economy while delivering value to customers.
- **Keeping pace with technological renewal:** As technological obsolescence accelerates, subscription models offer customers continuous access to the latest innovations. This eliminates the burden of ownership while ensuring that customers always benefit from cutting-edge advancements.
- **Declining equipment sales:** With shrinking margins and falling sales volumes in traditional equipment markets, aftersales services have become the primary profit driver for many manufacturers. This has prompted a shift toward the 'as-a-Service' model, enabling companies to diversify revenue streams and build a stronger market presence.
- **Differentiation in a competitive landscape:** In an increasingly crowded and globalized market, the 'as-a-Service' model provides manufacturers with a powerful means of differentiation. By offering value-added solutions and positioning themselves as strategic partners in their customers' success, manufacturers can build long-term loyalty, enhance customer experience, and navigate market fluctuations with greater resilience.

40% of manufacturers **offering PaaS now use hybrid pricing** (fixed fee + usage-based pricing) to **balance predictable revenue with customer flexibility.**

Example:

A cooling systems provider charges:

- **Base fee:** Fixed monthly payment for system access
- **Variable fee:** Charges per kilowatt-hour of cooling delivered

Why it works:

- Predictable recurring revenue for providers
- Scalable pricing for customers, aligned with usage
- Reduced pricing objections compared to upfront CapEx

4. Driving forces behind launching the Paas model: Creating a win-win-win scenario

4.1. FOR MANUFACTURERS/DISTRIBUTORS

- **Stable revenue streams:** The subscription-based 'Product-as-a-Service' model ensures a consistent and predictable revenue flow, enabling manufacturers to allocate resources efficiently and improve financial forecasting accuracy. This reliability supports long-term strategic planning and enhances business sustainability.
- **Improved company valuation:** Recurring revenue generated by 'as-a-Service' models is highly valued by shareholders, as it signifies financial stability and future growth potential. Companies with strong subscription models often enjoy higher valuations (on average, 3-5x higher), attracting investors and strengthening their market position.
- **Actionable customer insights:** Through connected equipment, 'as-a-Service' models allow manufacturers to collect detailed data on customer usage patterns. This data enables the development of customized solutions, enhances the customer experience, and facilitates tailored consulting services based on real-world needs and behaviors.
- **Strengthened customer loyalty:** Long-term subscription relationships build trust and loyalty, providing manufacturers with recurring opportunities for engagement. This creates a strong foundation for cross-selling complementary products or services while fostering deeper customer connections over time.
- **Strategic first-mover advantage:** Pioneering the 'as-a-Service' model within a specific niche establishes a competitive edge and can discourage competitors from entering the same market. This first-mover advantage can be pivotal in securing market leadership and long-term customer loyalty.
- **Better profit margins:** Service-based revenue streams typically deliver significantly higher EBIT margins compared to traditional product sales- up to four times higher, according to McKinsey & Company (2019). This shift enhances overall profitability and resilience.
- **Avoiding price wars:** Shifting the focus from price to value allows manufacturers to highlight their unique service offerings, reducing the need to engage in price wars with competitors.

Manufacturers:	Customers:	Planet/Sustainability:
 Stable recurring revenue stream	 Reduced investment hurdles and shift from CapEx to OpEx.	 (Financial) incentive to prolong equipment lifetime
 Enhanced customer loyalty; customer see you as partners	 Access to the latest technology, updates and upgrades	 Incentive to design easily repairable equipment
 Strategic differentiation towards competitors	 Flexibility to scale equipment usage	 Access to second-hand market of equipment
 Shorter sales cycles, close deals faster	 Peace of mind – outsourced operational risk	 Public authorities push for PaaS models
 Opportunity for data-driven insights & monetise full product lifecycle	 Shorter procurement cycles, get solution faster	 Business model part of the circular economy
...	...	...

Source: P2S Management Consulting

- **Portfolio diversification:** Incorporating 'as-a-Service' alongside traditional sales broadens customer appeal and mitigates risks associated with dependence on a single revenue source. This diversification enhances business resilience in dynamic markets.
- **Shorter sales cycles:** Subscription-based models eliminate the need for lengthy capital expenditure approvals, significantly reducing sales cycles. This streamlined approach enables faster customer onboarding, quicker revenue generation, and a more competitive market position.

4.2. FOR CUSTOMERS

- **Cashflow ease:** The PaaS payment structure preserves cash, a critical advantage in uncertain financial climates where maintaining liquidity is essential for business continuity and growth.
- **CapEx to OpEx transition:** By shifting from capital expenditure (CapEx) to operational expenditure (OpEx), customers gain greater financial agility. This approach improves balance sheets by reducing the need for substantial upfront investments, enabling businesses to allocate capital to other high-priority areas.
- **Flexible ownership options:** Catering to the growing demand for diverse ownership models provides customers with options that best suit their operational and financial needs.
- **Reduced operational risks:** By transferring risks such as equipment breakdowns or maintenance to manufacturers, customers ensure uninterrupted performance. This reliability is vital for maintaining operational efficiency and meeting production goals without costly delays.
- **Cost-effective for occasional use:** For businesses with variable or infrequent equipment needs, the "pay-as-you-go" model offers a highly cost-effective solution, eliminating the burden of underutilized assets.
- **Increased productivity through data integration:** Real-time data integration in the 'as-a-Service' model drives smarter decision-making and significantly boosts overall productivity, allowing for supply chain optimization and improved planning.
- **Predictable financial planning:** With fixed or usage-based fees, businesses can confidently plan budgets and avoid unpredictable, often high costs associated with equipment ownership, fostering stable financial management.

4.3. FOR OUR PLANET

- **Aligned with the Circular Economy:** PaaS champions product longevity, efficient usage, repairability, and responsible end-of-life strategies- key principles of the circular economy. By retaining ownership, manufacturers are incentivized to design durable and maintainable equipment, reducing waste and promoting sustainable business practices.
- **Resource conservation:** Durable, repairable equipment minimizes the extraction and consumption of raw materials, leading to substantial energy savings during production and operation. This conservation approach helps reduce the environmental footprint across the equipment lifecycle.
- **Support for regulatory compliance:** The PaaS model aligns seamlessly with sustainability mandates like the European Commission's Green Deal, which promotes eco-friendly practices and the creation of green jobs. Adopting PaaS ensures compliance with stringent regulations while demonstrating a commitment to global environmental goals.

5. Analysis of interviews and Case Studies

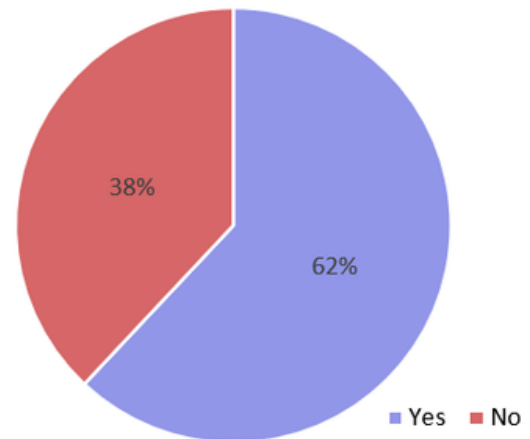
5.1. FOSTERING INTERNAL ALIGNMENT FOR PAAS ADOPTION: ENSURING TEAM ALIGNMENT AND READINESS FOR THE SHIFT TO SUBSCRIPTION MODELS.

Adopting a PaaS model is a major change for a company, requiring a complete rethink of business practices that might have been in place for many years. This shift is challenging, as it involves not just changes to operations but also to the company's overall mindset. Success depends on getting everyone on board by clearly explaining the benefits of a subscription models. This includes highlighting how it can support long-term growth, build stronger customer relationships, and create steady, predictable revenue.

1. Cross-organizational Alignment

Internal alignment emerged as a pivotal factor during the interviews, with the CEO's role highlighted as crucial in driving the transition to a subscription-based model. Among companies yet to launch or complete the transition, 80% cited a lack of CEO and executive support as a major obstacle. The remaining 20% refrained from detailing their challenges. In some cases, executives deprioritized the shift, viewing it as a contingency rather than a strategic priority. This lack of leadership commitment and urgency, as highlighted in the research, undermines the success of transformative initiatives.

Percentage of Companies experiencing internal Resistance to Servitization



Source: P2S Management Consulting & Politecnico di Milano

Even with full alignment from top management, actively promoting the transition across the organization is crucial to achieve the cultural shift. Employees in various departments must move from a transactional sales approach to delivering recurring value. Among the panel, 62% reported challenges, particularly in sales teams. Resistance was generally mild, often reflecting skepticism due to a lack of understanding about the need for change, especially when the current model was performing well.

Conversely, companies facing minimal resistance often shared organizational values like sustainability and an entrepreneurial culture, which naturally aligned with the new business model, reinforcing core principles and enabling a smoother transition.

25–50% more investment in customer onboarding and education than traditional product sales

- ✓ **Train Sales Teams** – Equip them with value-selling strategies to emphasize long-term benefits.
- ✓ **Strengthen Onboarding Programs** – Help customers quickly realize value and stay engaged.
- ✓ **Leverage Digital Tools** – Maintain seamless, ongoing interaction to enhance retention.

✈ **PaaS success isn't just about acquiring customers- it's about keeping them engaged and delivering continuous value.**

2. Strategies to overcome resistance

To ensure alignment and consensus throughout the organization, companies identified five key strategies to address and overcome internal resistance. These strategies, as outlined in the accompanying chart, provide a structured approach to building the organizational support necessary for a successful transition.



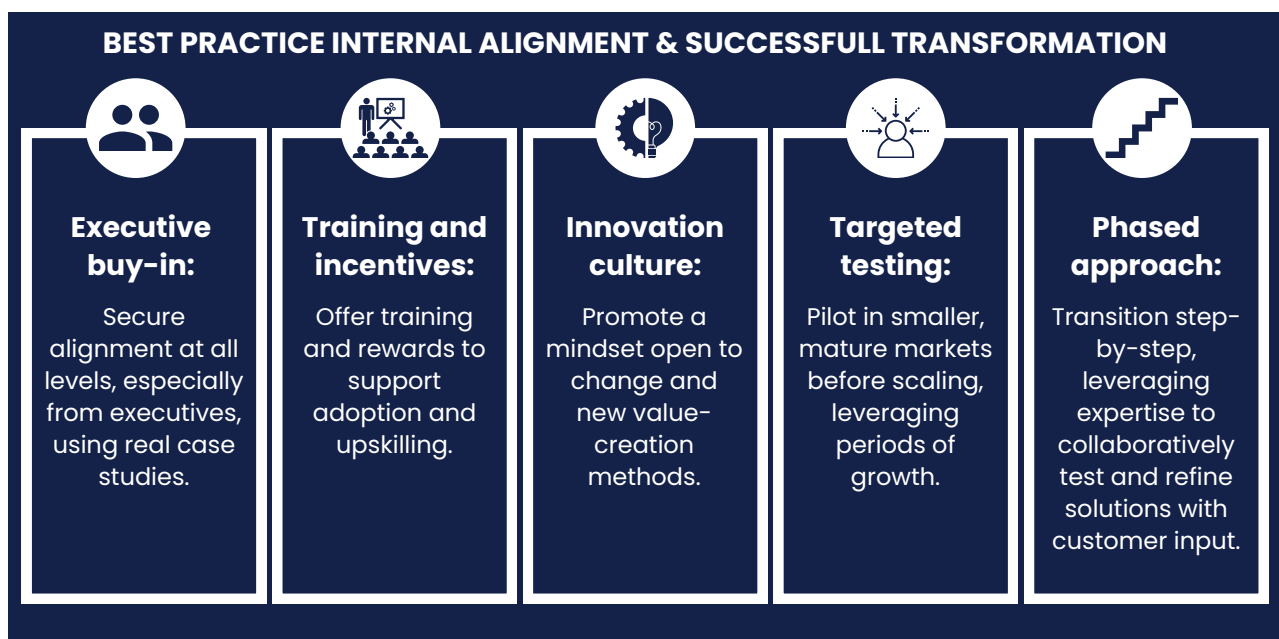
Source: P2S Management Consulting & Politecnico di Milano

Among these, training teams by highlighting the additional benefits for the company, employees, and customers remains a top priority. Many companies also emphasize the importance of reinforcing this approach with consistent communication and real-world success stories. For example, the company S. successfully transitioned to an as-a-service model, securing a \$3.7 million multi machinery and service deal over 10+ years instead of an initially predicted \$600,000 chiller sale. Such practical examples offer powerful evidence of the model's value, helping to build understanding and foster buy-in across the organization.

Beyond CEO commitment, successful PaaS adoption requires clear internal accountability. This includes embedding relevant PaaS metrics into the balanced scorecards of key managers. In times of external pressure or trade-offs, what gets measured tends to be prioritised.

Transitioning to a PaaS model requires seamless collaboration across the organization, with sales, IT, and finance teams working in unison under the clear guidance of the CEO and executive leadership. Interviews reveal that a well-structured plan, coupled with a dedicated team, is essential for execution, while external partners can provide valuable expertise. Taking an incremental approach significantly enhances the likelihood of success by enabling continuous validation and refinement.

This process typically begins with a Proof of Concept (PoC), where a small-scale implementation is tested in a controlled environment to validate feasibility and potential value. Once initial results confirm the concept's viability, the next phase involves broader testing—deploying the model in selected market segments or with pilot customers to assess performance under real-world conditions. Feedback from this phase informs necessary adjustments to pricing, service levels, and customer support. Only after these refinements does full-scale implementation take place, ensuring that the transition is both strategic and sustainable.



5.2. PRICING AND REVENUE MODELS: ADOPTING FLEXIBLE PRICING STRATEGIES AND PREDICTABLE REVENUE STREAMS THAT MAXIMIZE CUSTOMER VALUE AND PROFITABILITY.

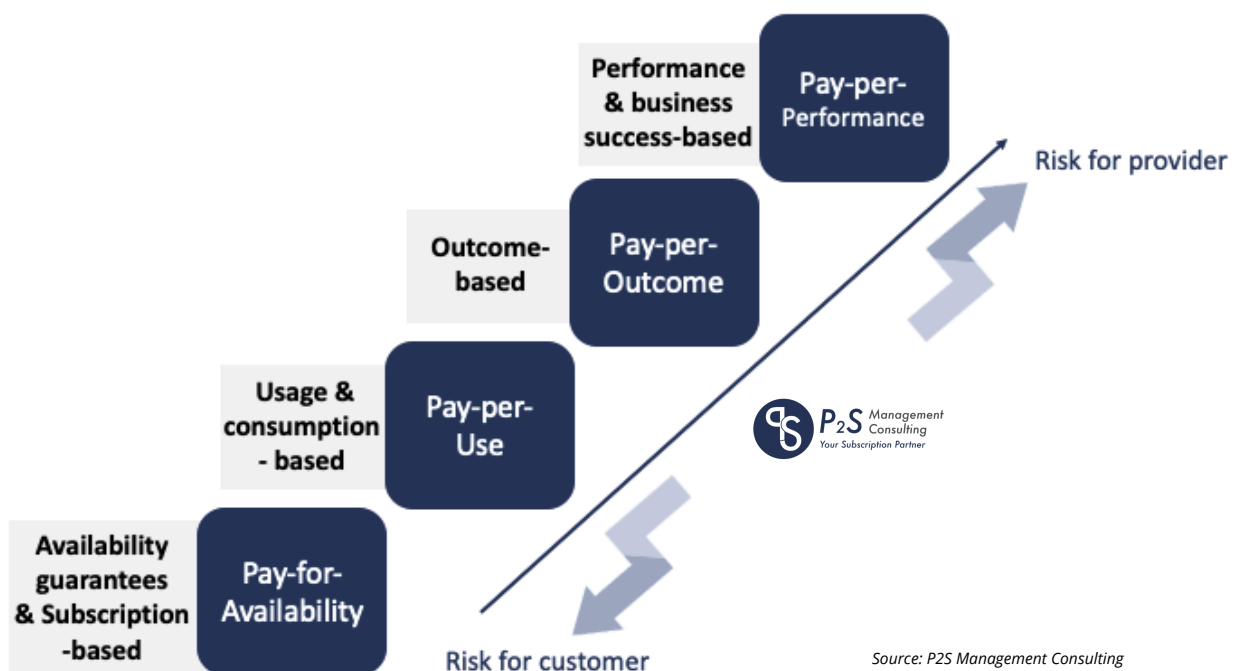
Transitioning from traditional to PaaS business models provides a key advantage for customers: it spreads the costs of assets and associated services over the entire duration of the contractual relationship. This approach enhances affordability and cash flow management. Experts emphasize that there is no universal pricing model; instead, manufacturers should tailor their pricing strategies to align with the unique needs of their industry and customer base. By doing so, they can maintain financial stability, effectively manage risk, and deliver value in a way that resonates with their market.

1. Defining the pricing metric: availability, usage, outcome or performance

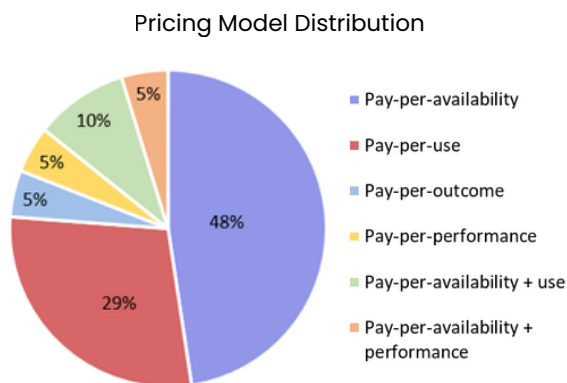
Adopting the PaaS model allows businesses to distribute payment obligations over the entire contract duration, rather than requiring a single upfront payment. Manufacturers can choose from several pricing approaches, or even combine them into a hybrid model, depending on their goals and customer needs:

- **Fixed fee for asset availability:** Customers pay a consistent fee for guaranteed access to the asset. This approach simplifies financial planning for both parties, ensures predictable cash flow, and shifts maintenance and operational risks to the provider.
- **Variable fee based on usage, outcomes or performance:** Charges fluctuate based on asset utilization, output, or performance metrics, aligning costs with the value customers derive. For example, Company L. charges customers based on cubic metres of compressed air delivered, directly tying costs to outcomes.

Success Metrics and Pricing Metrics:



As businesses move from fixed fees to performance-based pricing, the risk progressively shifts from the customer to the provider, reflecting the increasing accountability for delivering measurable results. In practice, many companies prioritize a “pay-per-availability” model, ensuring predictable revenue streams for them, and stable cost structures for customers.



Source: P2S Management Consulting

However, around 29% have adopted usage-based pricing models, though adoption remains limited, often constrained by varying levels of digitalization and machine connectivity.

Interestingly, 15% of businesses have embraced hybrid pricing models, blending fixed fees with variable components. This balanced approach offers financial stability while capturing the flexibility and customer-centricity of a “pay-as-you-benefit” philosophy.

2. Choosing the pricing strategy: cost-based, value-based or competitor-based

Once the payment type is defined, the next critical step is establishing the fee structure. Commonly used pricing strategies include cost-based, value-based, and competitor-based pricing. Among these, cost-based pricing remains prevalent. This approach incorporates several variables to tailor prices, such as:

- the accounting lifetime and cost of the asset
- spare parts costs
- contract duration
- frequency of repairs, interventions, and maintenance activities

This cost-based pricing approach is straightforward and easy to implement. In contrast, value-based pricing can unlock revenue potential, while requiring a deeper understanding of customer preferences, perceived value, and usage patterns. Gathering these insights can be challenging but highly rewarding. For instance, pioneers like Company C., using pay-per-performance pricing, have successfully aligned their pricing structures with customer value. Their success arises from leveraging detailed data to quantify the value customers derive from their offerings.

As awareness of value-based pricing grows and its benefits become more widely recognized, it is expected that more companies will adopt this approach. For example, Company J. currently employs a cost-based model that considers factors such as:

- the production cost of the tire and associated hardware components provided to customers,
- an allocation of marketing, sales, and support costs per tire,
- volume-based adjustments tied to the number of tires provided, and
- the duration of the service contract.

However, the company has explicitly stated its intention to transition toward a value-based pricing model. This shift aligns with their broader digitalization strategy for fleet management, highlighting their commitment to using data and technology to better align pricing with the value delivered to customers. By leveraging these tools, they aim to enhance customer satisfaction and maximize long-term profitability.

3. Leveraging conversion and engagement strategies

The SaaS industry, with its successful history, has significantly advanced its pricing strategies, frequently employing models such as freemium, add-ons, and trial periods*. Among these, the “good-better-best” tiered package approach is particularly effective, with 70% of SaaS companies in the Benelux region adopting this strategy.

In contrast, the PaaS industry reflects the relative novelty of the model, showcasing a different approach. Only two companies, P. and Q., currently offer pre-defined packages to clients, while most others prioritize flexibility and customization over standardized offerings. Additionally, two companies utilize add-on models. For example, in the tire-as-a-service case, add-ons are used to customize digitalization levels, enabling new customers to choose options like driving behavior analysis or tire condition monitoring.



Source: Benelux SaaS Pricing 2024 Report.

These trends highlight the need for further exploration of pricing and revenue strategies tailored to PaaS models. Innovative approaches such as variable, value-based, and tiered pricing hold immense potential to enhance profitability while delivering increased value to customers:

- **Variable Pricing:** Adapting prices based on usage, outcome, or performance optimizes revenue while offering customers flexibility, fostering trust and loyalty.
- **Value-Based Pricing:** Aligning charges with the perceived value of services allows businesses to capture more value while driving improvements to meet customer expectations and deliver measurable benefits.
- **Tiered Pricing:** Providing tiered packages makes PaaS solutions accessible to diverse audiences, promoting upselling and cross-selling by guiding customers to higher-value options as their needs grow.

This strategic alignment of provider and customer goals creates a win-win scenario, driving growth, customer satisfaction, and innovation within the PaaS ecosystem. By learning from the SaaS industry and adapting strategies to PaaS, manufacturers can unlock significant opportunities for long-term success.



5.3. SUSTAINABILITY AND PAAS MODELS: HOW PAAS CONTRIBUTES TO SUSTAINABILITY BY REDUCING WASTE AND PROMOTING RESOURCE EFFICIENCY.

Studies show that adopting recurring business models, where companies retain ownership of their assets, significantly advances environmental sustainability (P2S EU and U.S. Policies, 2025). Notably, 63% of respondents of the P2S study identified “achieving sustainability and circularity goals” as a primary or significant motivator for initiating such transitions. While industries like cinema, appliances, and consumer devices exhibit strong customer demand for these sustainable models, the reality is more nuanced in other sectors. For instance, Companies R. and S. report that customers in their markets are often less willing to pay a premium for the environmental benefits associated with such models, highlighting the variability in customer priorities.

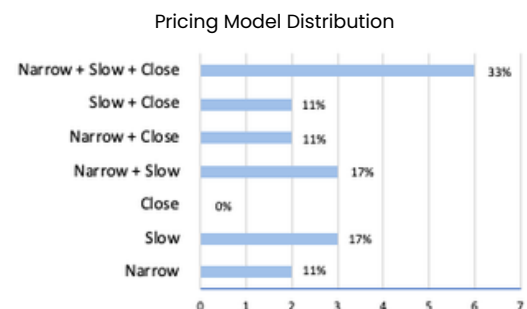
1. Firms’ responsibility: the “Narrow – Slow – Close the loop” framework

Manufacturers transitioning to recurring models can adopt the “Narrow – Slow – Close the Loop” framework (Bocken, N. M. P., de Pauw, I., 2016) as a guiding strategy to enhance sustainability:

- **Narrowing:** Focuses on using fewer resources during production to reduce material intensity.
- **Slowing:** Emphasizes extending product lifespans, slowing the flow of materials from production to disposal.
- **Closing:** Involves creating a circular flow by integrating end-of-life materials back into production.

From the panel of companies analyzed in this study, findings reveal varied levels of alignment with these principles. Four companies, which have yet to complete their contracts, have proactively shared plans to implement closing strategies. This highlights how PaaS business models inherently support sustainability by retaining ownership and enabling greater control over end-of-life processes.

When focusing on companies with sustainability as a key driver, the proportion actively engaged in closing strategies rises from 56% to 64%. This shift underscores the growing responsibility of manufacturers to manage products at end-of-life, as ownership remains with the provider.



Source: P2S Management Consulting & Politecnico di Milano

For example, Company I. has successfully integrated the “Narrow – Slow – Close the Loop” principles into its PaaS model:

- **Narrowing:** They have led the transition to low-GWP* equipment, significantly reducing the environmental impact of refrigerants.
- **Slowing:** Modular cooling systems are now designed to enable seamless equipment transfer between sites. Additionally, older machines, while no longer energy efficient, have been repurposed as standby units, extending their useful life.
- **Closing:** They collaborate closely with advanced technology providers, enabling them to enhance their processes for recycling and recovering materials more effectively.

2. Users' responsibility: Optimizing product usage

While manufacturers manage much of the product lifecycle, a significant portion of its environmental impact occurs during the usage phase in customers' hands. To address this, 13 companies have implemented measures to minimize the footprint during usage, focusing on energy efficiency and product optimization. These efforts have yielded substantial results, including a 70% energy saving for Company O., a 40% CO2 reduction for Company P., and a 10–15% decrease in fungicide usage for Company R. (P2S EU and U.S. Policies, 2025).

3. Aligning PaaS with sustainability goals

The growing number of regulations addressing circularity and sustainability– particularly in energy, manufacturing, agriculture, and even cinema– positions the PaaS model as a strategic approach to harmonize economic growth with environmental stewardship. By emphasizing durable, reusable, and repairable products, PaaS minimizes waste and resource consumption while fostering long-term value creation.

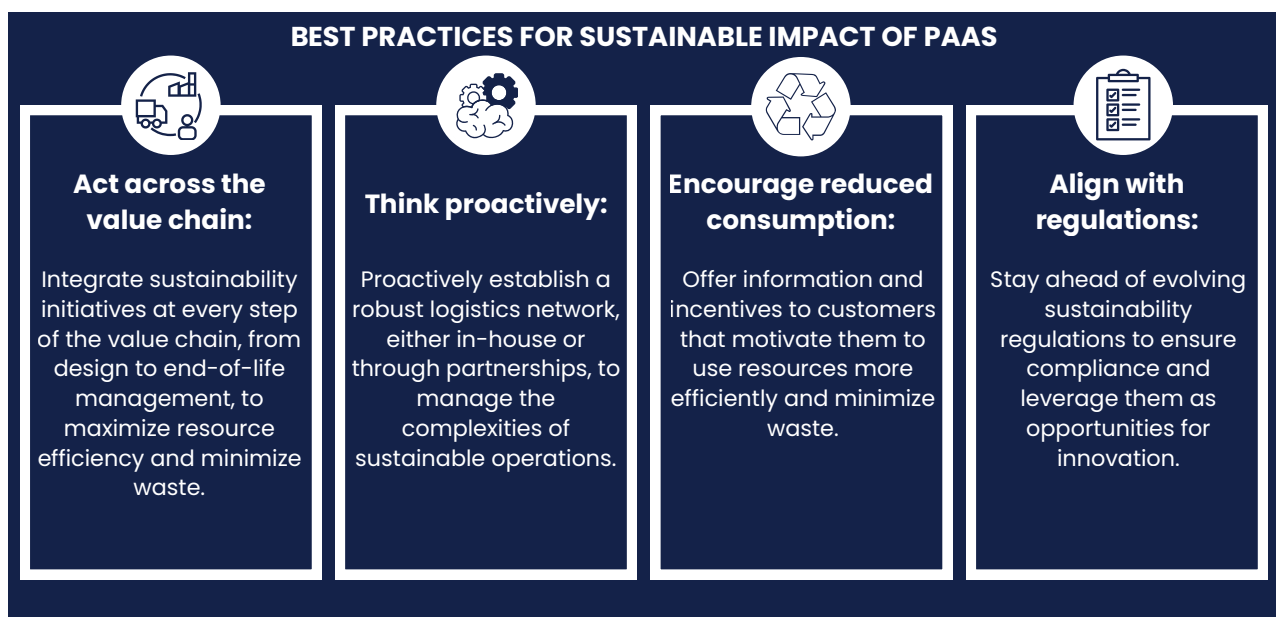
As highlighted in the P2S Global shift to Product-as-a-Service (PaaS) White Paper, PaaS aligns seamlessly with key European initiatives like the EU Green Deal and the New Circular Economy Action Plan. These policies aim to transform the economy into a more sustainable and resource-efficient system:

- **The EU Green Deal** aims to reduce greenhouse gas emissions, decouple growth from resource use, and drive business model innovation that prioritizes usership over ownership.
- **The New Circular Economy Action Plan** identifies PaaS as vital for circularity across sectors, advocating for durable, repairable products and consumption models like leasing and pay-per-use.

Regulatory developments in 2025 and beyond are reinforcing the shift to circular business models:

- **CSRD Compliance:** The Corporate Sustainability Reporting Directive (CSRD) requires large EU companies to report on circularity and resource efficiency. PaaS helps businesses meet these standards by showcasing reduced material use, extended lifecycles, and lower environmental impact.
- **GHG Protocol Updates (2026/27):** The GHG Protocol is updating emissions accounting to integrate circularity, particularly Scope 3 emissions. PaaS users can better track and report reductions from extended use, refurbishing, and recycling– aligning with evolving EU and global regulations.

By adopting PaaS, companies ensure compliance while boosting competitiveness, resilience, and innovation in the circular economy.



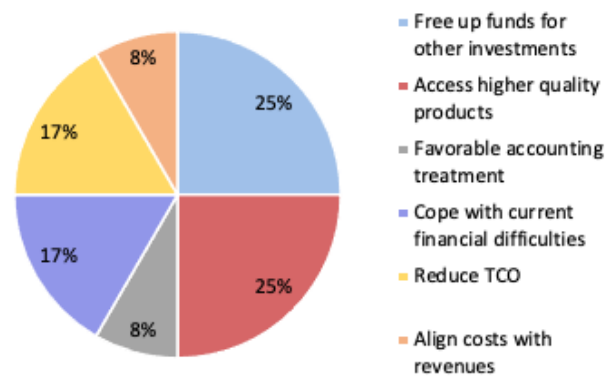
5.4. FINANCING STRUCTURE AND OPEX MODELS: SHIFTING FROM CAPEX TO OPEX FOR OPTIMIZED FINANCIAL PLANNING AND REDUCED UPFRONT COSTS.

The transition from one-off sales to recurring business models significantly alters cash flow dynamics and financing strategies for both manufacturers and customers. Customers benefit from converting capital expenditures (CapEx) into operational expenditures (OpEx), reducing upfront costs and allowing for more flexible financial planning. However, this shift requires long-term budgeting and commitment. For manufacturers, the transition necessitates higher initial investments and longer revenue cycles, demanding robust financing strategies and partnerships to manage financial risks. This dual transformation underscores the need for innovative financing solutions and trust-based collaboration to ensure mutual success and business model viability.

1. Financial benefits for customers

For customers, the primary driver of this shift is overcoming the barrier of high upfront costs, as cited by 10 companies in this study. While Company L. is a clear example, more than 50% of the interviewees noted that this transition enables customers to access premium products without the need for substantial capital outlays. Additionally, customers benefit from reallocating their capital toward other strategic priorities, further enhancing the value proposition of the OpEx model.*

Financial Advantages for Customers

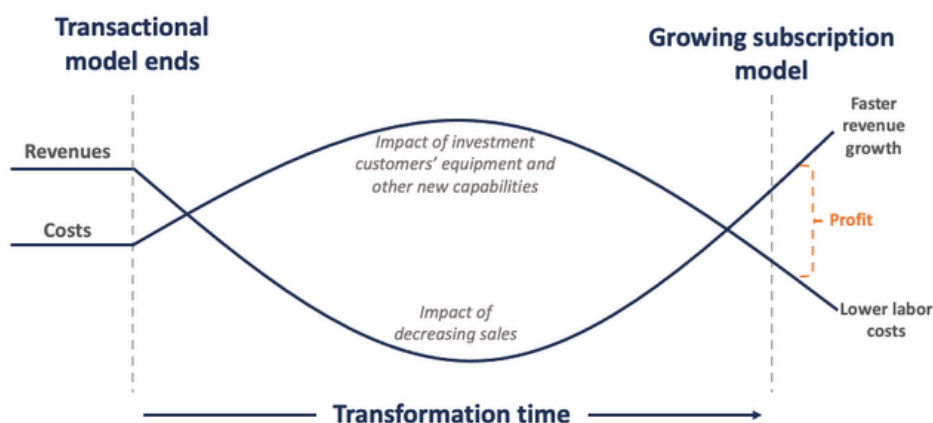


Source: P2S Management Consulting & Politecnico di Milano

2. Financing options

From the manufacturer's perspective, transitioning to a PaaS model introduces challenges such as increased technical demands and extended revenue recognition periods, often described by the "Fish Model." This model reflects a substantial initial dip in earnings as manufacturers shift from upfront payments to recurring revenue streams. For instance, transitioning from a one-time software license fee to recurring monthly subscriptions highlights this dynamic. Preparing for and strategically managing this shift is critical for long-term sustainability and profitability.

Without financing, profits will strongly be impacted in the first years.



We do not want to be in the fish's belly!

Source: TSIA & P2S Management Consulting

*Favorable accounting treatment = Minimize the impact on balance sheet size and lower the tax base by categorizing expenses as operational expenditures (Opex) rather than capital expenditures (Capex). TCO = total cost of ownership.

To navigate these challenges, manufacturers have adopted diverse financing structures, reflecting a blend of theoretical frameworks and practical applications. Key approaches include:

- **Self-financing:** Five companies in the study self-finance their subscription-based assets, relying on strong cash flow reserves or financial backing from parent companies. This approach is common for well-established businesses in the early stages of PaaS adoption.
- **Bank financing:** Company E. transitioned from self-financing to bank financing to manage growing demand. This allowed the company to scale operations effectively while maintaining financial stability.
- **Collaboration with leasing partners:** Five companies used a sell-leaseback approach, transferring asset ownership off their balance sheets while sharing risks with leasing firms. However, many faced challenges in structuring deals that preserved margins and model viability, as seen with Companies D. and R., which remain independent under their parent organizations' supervision.
- **Special Purpose Vehicles (SPVs):** Company S. created an SPV backed by five financial institutions to manage its PaaS financing. This structure allows the SPV to own, capitalize, and depreciate assets, reducing risks and optimizing operations.
- **Grants and regional incentives:** Two companies leveraged government grants and location-based financial incentives to support their financing needs, demonstrating the importance of regional funding policies in facilitating the PaaS transition.

Financing Evolution: From Self-Financing to Special Purpose Vehicles

The financing journey often begins with self-financing during the early stages of a PaaS initiative, especially when operations are small and manageable. This phase allows manufacturers to maintain full control and minimize external dependencies. As demand increases and the model scales, companies frequently transition to bank financing or collaborate with leasing partners to reduce financial burdens and distribute risks more effectively.

At a mature stage, many manufacturers adopt advanced financing structures, such as Special Purpose Vehicles (SPVs). These entities streamline operations, enhance risk management, and offer operational efficiencies, reflecting the PaaS model's evolution into a core business strategy. By leveraging these progressive financing mechanisms, manufacturers can sustain growth, balance financial risks, and ensure the long-term viability of their PaaS models.

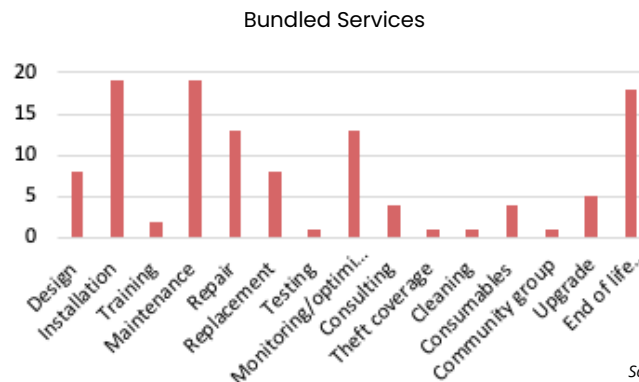


5.5. CONTRACTS, GENERAL TERMS, AND RISK MANAGEMENT: STRUCTURING AGREEMENTS AND MANAGING RISKS TO ENSURE SMOOTH OPERATION AND MINIMIZE LIABILITIES.

Transitioning to a subscription-based PaaS model reshapes customer relationships, particularly their duration and dynamics. Unlike traditional sales, where payment is completed upon purchase, PaaS relies on recurring payments detailed in a contract. These payments not only cover the asset but also the associated services provided throughout the agreement, fostering long-term partnerships. Ownership of the assets remains with the provider, while customers gain the right to use them under clearly defined terms. This structure requires precise, well-crafted contracts to ensure seamless operations and mutually beneficial outcomes over the agreement's duration.

1. Contract coverage: a comprehensive range of services

PaaS models differentiate themselves by bundling assets with extensive services designed to offer customers peace of mind. Service Level Agreements (SLAs) are central to these contracts, defining specific standards for performance, reliability, and support. SLAs establish clear accountability, ensuring customer trust and satisfaction.



Core services like installation, maintenance, and end-of-life management are standard inclusions, while additional services are customized based on factors like asset type, industry needs, and customer requirements. For example, companies in farming, lighting, cooling, and energy sectors have adopted performance-based contracts. These agreements guarantee measurable outcomes—such as energy savings, cost reductions, or productivity improvements—tied directly to the provider's solution.

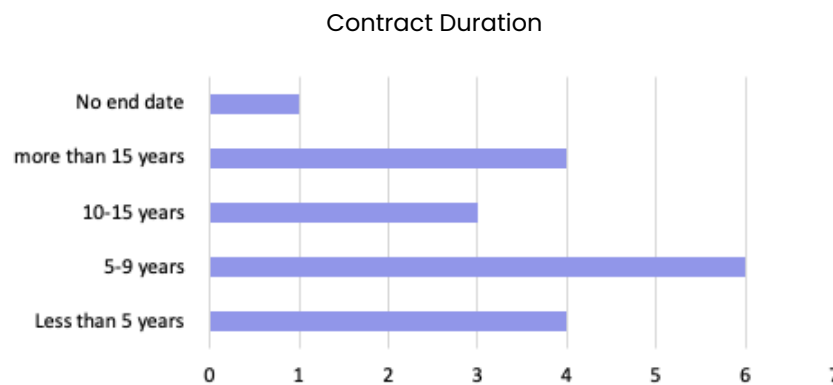
To manage the increased accountability and financial risks of performance-based contracts, providers must implement robust systems, accurate monitoring tools, and proactive maintenance. These measures ensure providers consistently deliver on commitments while minimizing potential financial challenges.

2. Contract duration: balancing longevity and flexibility

Service-based contracts are inherently longer than traditional agreements, reflecting the complexity of assets and the need for ongoing service. However, durations can vary significantly based on asset characteristics and customer needs:

- **Fixed-term contracts:** A minority of contracts (4 out of the analyzed panel) align terms with the asset's lifetime value, simplifying accounting and mitigating risks. Fixed terms are favored for complex equipment where dismantling poses logistical and financial challenges.
- **Flexible-term contracts:** A larger proportion of contracts (8 out of the panel) offer variable durations, ranging from 3 to 5 years to as long as 20 years. Flexibility is crucial for accommodating evolving technologies, diverse product lifecycles, and varying customer requirements.

Company D., for instance, has adopted an open-ended model with no fixed termination date, similar to Netflix's subscription approach. This continuous model emphasizes value creation and customer flexibility, fostering long-term relationships and maximizing satisfaction.



Source: P2S Management Consulting & Politecnico di Milano

Managing risk: Ensuring customer confidence

A key advantage of the PaaS model is minimizing customer risks, allowing seamless access to solutions without large upfront costs. For instance, Company I. emphasized its strategy of reducing customer exposure while maintaining service reliability.

Providers vary in their approach to risk distribution. Some take full responsibility, while others adopt a shared-risk model, balancing responsibilities and financial stakes between both parties. This approach fosters stronger partnerships and ensures mutual commitment to the agreement's success.

By incorporating clear terms, flexible durations, and effective risk management strategies, PaaS contracts not only secure long-term operational efficiency but also build trust and loyalty among customers. These practices ensure the viability of the subscription-based model while driving mutual growth and satisfaction.

3. Ensuring appropriate risk-sharing among actors

The interview with Company I. emphasized that customers should bear minimal to no risks, capitalizing on the promise of seamless access to solutions without substantial initial investments. While this can be a compelling selling point, not all providers handle risk distribution the same way. Some prefer a shared-risk model, where both the customer and provider take on specific responsibilities and financial stakes.

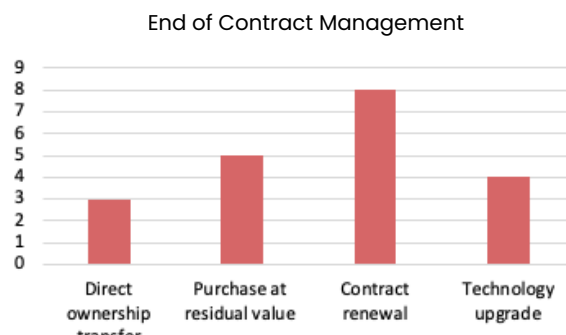
If detailed clauses that hold customers accountable for damages caused by improper use is the norm, other companies have implemented more rigorous measures:

- **Contractual terms:** Establish fixed contract durations, set minimum usage requirements, implement minimum fees, and provide fee discounts based on contract length to foster strong customer commitment, as emphasized by the majority of firms on the panel.
- **Financial assessments:** Conducting thorough financial checks to ensure the customer's solvability. For instance, in Company H., providers require customers to have a minimum of two years of business operations and demonstrate financial viability before granting access to the subscription model.
- **Adjustment clauses:** Introducing "loop clauses" that allow for price adjustments if, after six months, significant deviations from initial projections are identified, as observed in Company J.

4. End of contract management

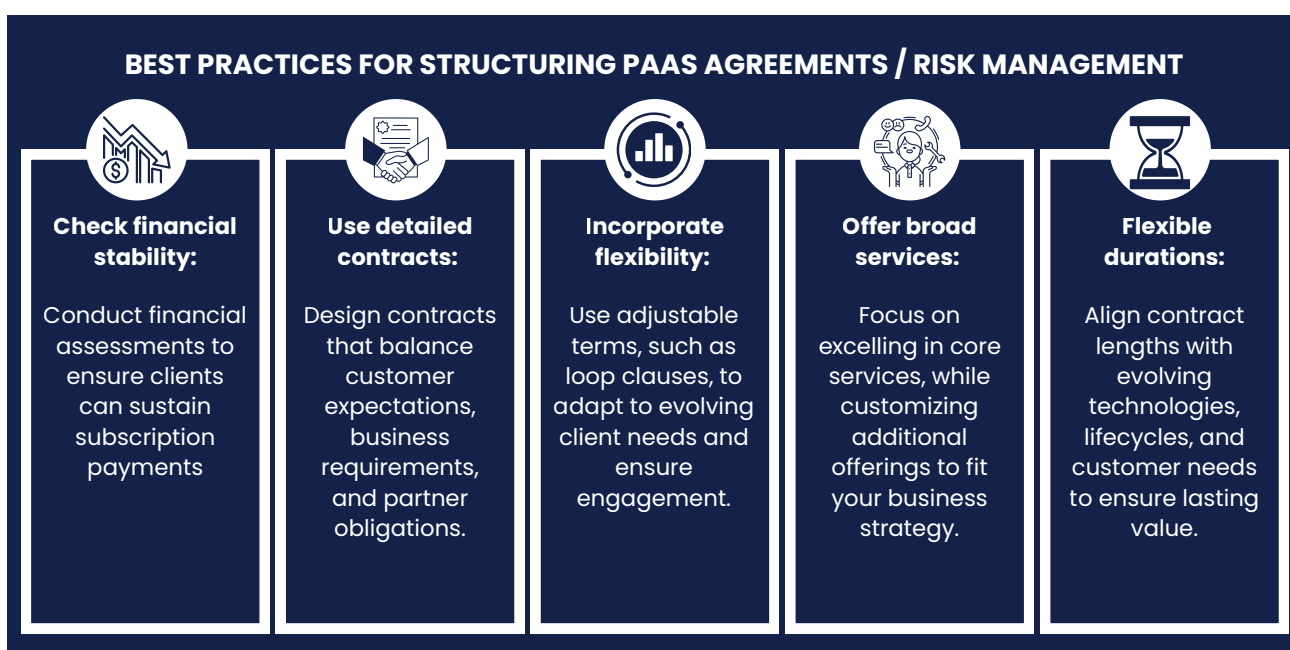
As the contract approaches the end of its duration, customers typically have several options to consider for the next steps. Our sample identified 5 distinct strategies:

- **Direct ownership transfer:** 3 companies, which align the contract duration with the accounting lifespan of the assets, facilitate an automatic transfer of ownership to the customer at the contract's conclusion. This marks the end of the relationship at this stage.
- **Asset purchase option:** 5 companies offer their clients the opportunity to purchase the assets at a fair or residual value, allowing them to take full ownership. This also brings the existing relationship to a close.
- **Contract renewal:** The most prevalent strategy, consistent with the benefits of the PaaS model, is to encourage customers to renew their contracts. In some cases, where the asset's value has already been fully amortized, this transition leads to a service-only contract. In other cases, the renewal includes new assets under management, extending the lifecycle of the agreement. An important consideration in this strategy is that the terms of the new contract may change. For example, in the case of fleet management, a new pricing structure may be established based on prevailing market conditions, prompting renewal discussions to begin accordingly.
- **Technology upgrade:** 4 companies provide customers with the option to switch to an upgraded version of the product under a subscription model. This strategy not only extends the relationship but also enhances customer retention by delivering increased value.
- **Manufacturer take-back:** If none of these strategies are chosen, or if the selected strategy involves replacing an asset or component, it becomes the responsibility of the manufacturer or its distributor to retrieve the product and manage its end-of-life process.



Source: P2S Management Consulting & Politecnico di Milano

As a result, the PaaS model shifts a simple purchase order into a comprehensive, long-term contract that ensures high-quality service and reduces risks for the customer. By transferring responsibilities like maintenance, repairs, and performance guarantees to the provider, customers can focus on their core activities while benefiting from reliable, predictable support.



5.6. SALES AND MARKETING PROCESSES: DRIVING CUSTOMER ACQUISITION – HOW TO SELL SUBSCRIPTIONS TO CUSTOMERS.

Transitioning to a subscription-based PaaS model introduces significant changes to the sales process. Notably, only 4 of the analyzed companies have fully transitioned to 100% subscription offerings, with no one-time purchase options. Most others employ a hybrid model, offering both subscription and traditional purchase options. In both cases, this shift requires companies to rethink how they engage customers and deliver value.

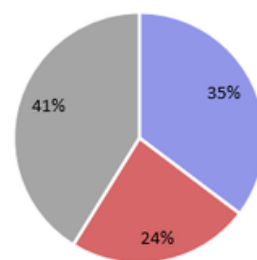
Traditionally, sales efforts have focused on product ownership, with cost and quality being the primary decision factors for customers. The subscription model, however, shifts the focus to long-term benefits and added value, such as flexibility, ongoing support, risk reduction, and total cost of ownership (TCO) optimization. Customers often perceive the recurring fees as more expensive than a one-time purchase, as demonstrated by Company D., emphasizing the need for clear communication and education. Companies must invest in building specialized sales teams, hire experts, and develop robust strategies to effectively articulate the subscription model's value proposition.

1. Developing the sales department

Selling a subscription model requires to engage customers early, securing their long-term commitment, and maintaining ongoing communication to consistently deliver the promised value. For this approach to succeed, it is crucial for sales teams to fully understand the subscription model and its operational, financial, and strategic implications. Different strategies have been spotted by the panel:

How Companies Structure Their Sales Team

■ Existing sales team ■ Specialized team ■ Supporting experts



Source: P2S Management Consulting & Politecnico di Milano

- **Leveraging existing sales teams:** 35% of companies rely on their current sales teams and channels, equipping them with tools and knowledge to effectively manage subscription sales. Common practices include support from headquarters to close complex deals and the creation of TCO calculators to assist sales teams in demonstrating value to customers.
- **Specialized subscription sales teams:** Companies fully committed to PaaS often establish specialized teams or business units dedicated to subscription sales. These teams target customers ready to transition, ensuring focus and expertise.
- **Hybrid approach:** 41% use a hybrid strategy, retaining their existing salesforce while adding roles like Customer Success Managers or Innovation Specialists to manage subscription deals. This balance preserves established customer relationships while addressing the unique demands of subscription sales, easing the transition to the new model.

Companies using specialized or hybrid approaches achieve better outcomes, as sales teams relying on traditional methods often prioritize one-off sales, undermining the subscription model. Dedicated resources and strategic focus are crucial for driving adoption and ensuring long-term success.

Targeting new customers is often more effective for subscription sales, as they are less tied to traditional purchasing models and more open to exploring flexible, value-driven approaches. This enables companies to build their subscription base without disrupting existing customer relationships reliant on one-off purchases.

2. Customer profiles and decision dynamics

The individuals making purchasing decisions in a subscription model often differ from traditional sales processes. While Company G. highlights that subscriptions simplify decision-making, most companies noted an increase in complexity, driven by:

- **Shifting decision-making dynamics:** Transitioning to PaaS often requires engaging with higher-level stakeholders, such as C-level executives, due to the strategic and financial implications of long-term commitments.
- **Targeted customer strategies:** 50% of firms implement focused targeting strategies to attract innovative, value-seeking customers or those managing high transaction volumes, where the subscription model delivers significant benefits.
- **Accessing new market segments:** 31% of companies have expanded into new segments by leveraging subscription models. For example, Company M. successfully targeted sustainability-focused businesses, adding an entirely new customer profile to its portfolio.

3. Customer interactions

In a subscription-based model, regular customer interactions are essential for satisfaction, loyalty, and long-term success. Unlike traditional sales, which end after the initial transaction, subscriptions require ongoing engagement to deliver value and maintain trust. Key practices include:

- **Tailored, data-driven insights and KPIs:** Sharing data-driven insights, actionable KPIs, and personalized recommendations via dashboards or reports strengthens customer relationships. Interaction frequency varies by deal size, client importance, and solution complexity, with monthly or quarterly meetings as standard practice, complemented by strategic annual reviews.
- **Dedicated account management:** Companies like Company H. deploy account managers for regular client visits to ensure operations run smoothly and resolve issues. Company F. facilitates cross-functional meetings with customer stakeholders to identify improvements.
- **Innovative engagement strategies:** Beyond routine meetings, companies use product launches and innovation showcases to strengthen partnerships and demonstrate value. Digital tools enhance communication, real-time tracking, and tailored insights, improving alignment.

Leveraging the LAER model in subscription engagement

The LAER model (Land-Adopt-Expand-Renew) provides a framework for managing customer interactions and maximizing subscription value:

- **Land:** Acquire customers by highlighting the subscription's benefits, such as reduced upfront costs, flexibility, and ongoing support.
- **Adopt:** Drive successful integration through onboarding, training, and proactive support, helping customers achieve their desired outcomes quickly.
- **Expand:** Identify opportunities to upsell or cross-sell additional services or higher-tier plans using performance reviews to demonstrate added value.
- **Renew:** Reinforce loyalty by showcasing value delivered during the subscription term through regular reviews and continuous improvements.

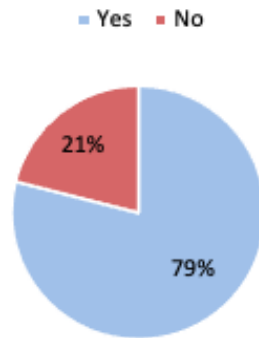
The LAER model aligns with subscription management principles, optimizing customer engagement. Company F. focuses on Adopt and Expand through frequent meetings, while Company H.'s account managers prioritize Renew by regularly addressing client needs.

Applying the LAER model streamlines interactions, ensures smooth integration, and fosters long-term relationships that drive recurring revenue.

4. Marketing materials

From the panel, 79% of companies openly promote their subscription offerings, while 21% have opted not to, choosing to introduce them only after initial contact with potential customers. Company G. explained this approach, citing the model's complexity and the need for tailored solutions. By withholding details upfront, they aim to prevent misconceptions that might deter interest. Others pointed to competitive concerns, preferring confidentiality to safeguard their strategic advantage.

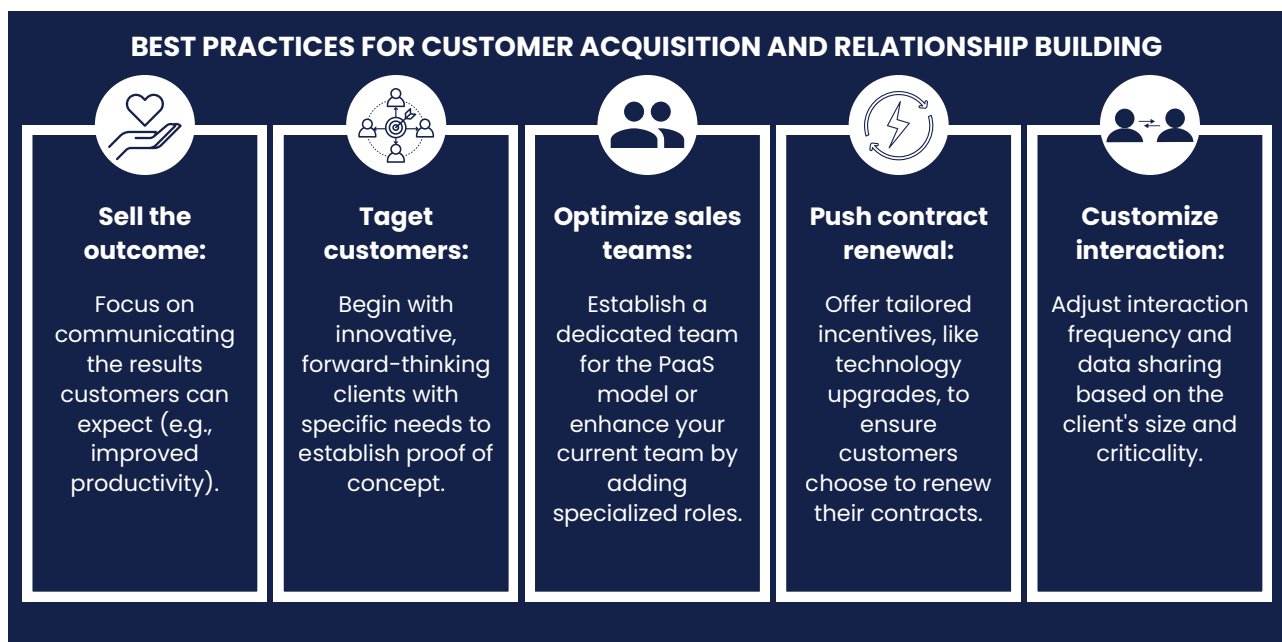
Information disclosed on their website?



Source: P2S Management Consulting & Politecnico di Milano

Conversely, 79% of companies publicly promote their PaaS offerings through methods ranging from newsroom articles to dedicated webpages. Industries like cooling and carpeting are particularly proactive, advocating subscription models through workshops, partnerships with sustainability organizations, conferences, and other channels to raise awareness.

This evolution transforms the sales function, introducing new roles, targeted strategies, and tailored marketing materials to engage decision-makers effectively. Sales shifts from a transactional role to fostering strategic partnerships, ensuring alignment with the subscription model's value and driving stronger customer retention and growth.



5.7. SUBSCRIPTION KPIS: KEY METRICS TO TRACK THE HEALTH AND GROWTH OF YOUR SUBSCRIPTION BUSINESS.

Measuring the success of PaaS models requires tracking KPIs beyond traditional metrics, focusing on profitability, customer relationships, environmental impact, and product and service performance. These metrics offer critical insights into the subscription model's health and growth.

1. KPIs for Customer Value and Relationships

The Total Cost of Ownership (TCO) analysis is a vital tool in the PaaS model, actively used by 74% of the panel. TCO highlights that when all costs, including hidden ones, are considered, subscribing is often more cost-effective than outright ownership and managing associated service costs and responsibilities. This transparency strengthens the provider's value proposition, building trust and driving customer adoption.

Under PaaS, long-term engagement is central to customer relationships. Post-contract, maintaining and enhancing the customer's perception of value is critical. Sharing operational data not only optimizes asset use but also allows providers to retain partial control over their owned assets.

Sector-specific KPIs, communicated via dashboards, are increasingly used to deliver insights and ensure value. For example, providers track energy savings and temperature compliance for cooling systems or brightness levels for cinema solutions. These metrics enable providers to monitor performance, deliver consistent quality, and ensure customers fully benefit from the offering.

Customer satisfaction and loyalty are measured through KPIs like Net Promoter Score (NPS), exclusive loyalty rates, and usage frequency. For companies with performance-based contracts, these indicators are integral to assessing profitability and customer outcomes. In the energy sector, for instance, these metrics play a direct role in evaluating contract success and financial performance.

2. KPIs for the Environmental Performance

One of the primary drivers of transitioning to PaaS is its potential for improved environmental impact. In a world where terms like "sustainable" and "eco-friendly" have become marketing staples to enhance a company's image, it is increasingly vital to share data on environmental outcomes across varying levels of adoption. Many companies readily communicate to their clients that shifting to a subscription model leads to energy and CO₂ savings. For example, Company P. can scientifically demonstrate that such a transition has reduced CO₂ emissions by as much as 70%. Similarly, Company D. took a more comprehensive approach by conducting a full Life Cycle Assessment (LCA) on one of its products. This analysis assesses the environmental performance of the subscription option, compared to the sale one, across 19 dimensions, with results showing improvements in 18 of them under the subscription model.

Beyond emissions, an increasing number of firms are emphasizing their role in managing products throughout their entire lifecycle. A standout example can be found in the lighting industry, which has gone as far as developing its own Circularity Index aligned with the "narrow-slow-close" framework.

The Subscription Mindset: Metrics that Matter

Companies that track Customer Lifetime Value (CLV) and churn rates see two times higher retention in their PaaS business compared to those focusing only on new sales.

How to shift your sales focus:

- Reward long-term contracts over one-time deals
- Measure customer engagement metrics, not just revenue
- Optimize pricing models based on churn trends and CLV

3. KPIs for business profitability

In subscription models, profitability shifts from one-time asset sales to recurring revenue streams generated by the product and services. **Annual Recurring Revenue (ARR)** becomes a core metric, reflecting future income potential and customer retention.

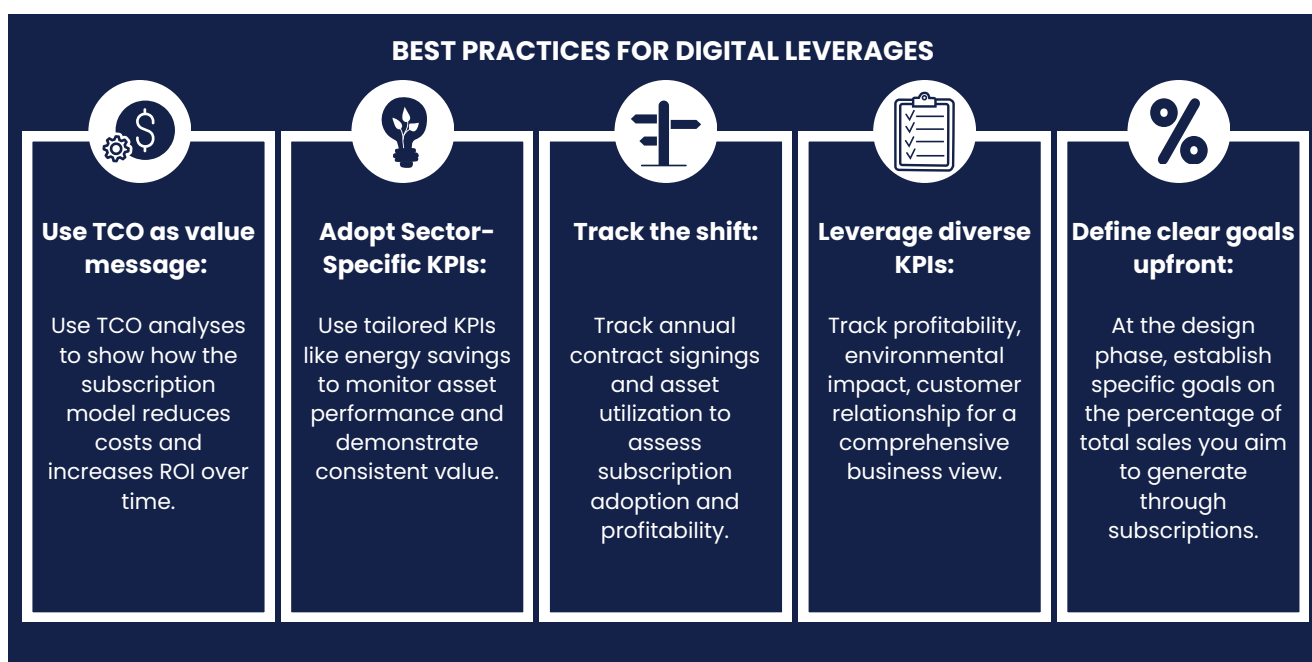
Some companies, like Company D., prioritize recurring revenue metrics, tailoring their evaluation frameworks to the PaaS model. Companies E. and I. focus on the value of assets under management as a measure of long-term viability. However, many in the panel still rely on traditional metrics such as gross margin and EBITDA, complemented by subscription-specific metrics like:

- **Contracts signed annually:** Gauging the growth in business under subscription.
- **Pull-through rates:** Assessing customer commitment and upselling success.
- **Profitability growth:** Ensuring the sustainability of the recurring model.

Adopting a PaaS model necessitates updating performance evaluation methods. The recurring payment structure has far-reaching implications, including new accounting requirements under IFRS 15 and 16, which set the foundation for performance measurement. Many companies, such as Company H., still rely heavily on initial purchase value as a primary metric, revealing the need for more sophisticated approaches.

To better reflect the dynamics of PaaS, businesses must evolve their frameworks to include metrics like Customer Lifetime Value (CLV), churn rate, and ARR growth. These metrics will help capture the full picture of financial performance, customer engagement, and long-term sustainability in a subscription-driven model.

By focusing on these KPIs, companies can track the health and growth of their subscription business, ensuring they remain competitive while driving customer value and environmental impact.



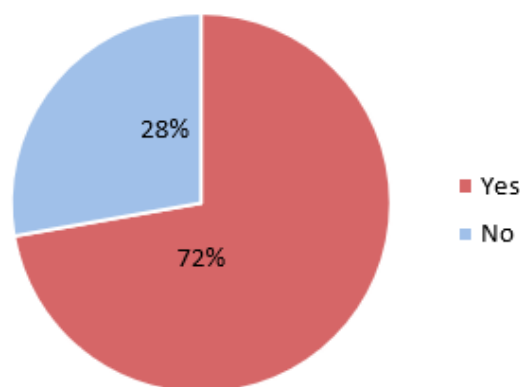
5.8. CONNECTED DEVICES AND IT INFRASTRUCTURE: LEVERAGING IOT AND DIGITAL SOLUTIONS FOR SEAMLESS SERVICE DELIVERY

Transitioning to a PaaS model depends heavily on advanced connectivity and robust IT infrastructure. Most of the capabilities discussed in earlier sections require products to have a baseline level of digitalization. By leveraging the Internet of Things (IoT) and digital technologies, businesses can enable real-time monitoring, predictive maintenance, and efficient service management. Connected devices not only enhance operational efficiency but also deliver actionable insights to improve customer satisfaction, drive innovation, and support recurring revenue growth.

1. Software as a critical component of PaaS

One of the most important applications of these technologies is software that provides clients with tailored information. According to the panel, 72% of companies offer software as part of their PaaS package or as an add-on. These tools support customers by delivering insights such as usage data, quality metrics, and environmental impact.

Adoption of Software in PaaS Offerings



Source: P2S Management Consulting & Politecnico di Milano

For example, in the fleet industry, the company allows each client to choose the options they want to include. They can range from simply managing the charging phase of their tools to fully tracking the tasks of each employee. But all these efforts aim to enhance the customers' understanding of their products and ensure that the promised value is fully realized.

Challenges remain for companies not offering such software. Barriers include client reluctance to share sensitive data, insufficient digitalization on the customer side, and internal organizational hurdles. For instance, despite managing over 400,000 subscription products, Company J. still handles tire management manually. However, the company is transitioning to connected solutions for all new clients to address these limitations.

2. The technological enablers

Insights from the panel and real-world examples emphasize the importance of specific technologies for PaaS success. These can be grouped into four categories:

Essential Technologies:

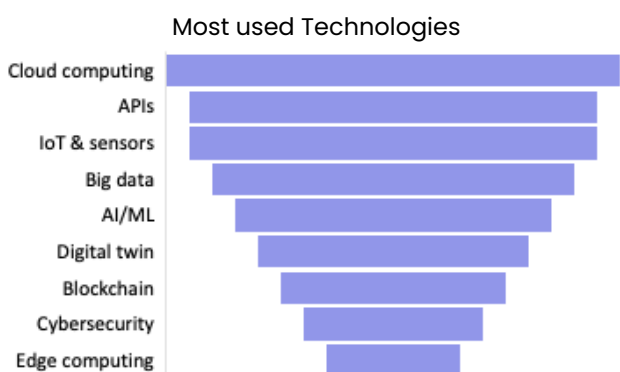
- **IoT and sensors** collect real-time data on product performance, usage, and maintenance needs.
- **Cloud computing** provides the foundation for scalable, efficient data storage and processing, enabling global service management.
- **APIs (Application Programming Interfaces)** ensure smooth integration between systems, enabling flexible service delivery.

Strategic Technologies:

- **Big Data, Artificial Intelligence (AI), and Machine Learning (ML)** analyze data collected by sensors to deliver insights, automate processes, and personalize customer experiences.
- **Digital twin technology** creates virtual replicas of physical assets, allowing businesses to test improvements and optimize operations without real-world risks.

Security and Performance-driven Tools:

- **Cybersecurity tools** protect customer data, building trust in the PaaS model.
- **Edge computing** processes data closer to its source, reducing latency.
- **Blockchain** ensures secure, transparent transactions, particularly for recurring payments.



The panel highlights Cloud Computing and IoT as foundational, with AI, ML, and Big Data adding advanced capabilities. Tools like Digital Twins and blockchain provide specialized support, helping businesses scale and innovate.

3. APIs, modernizing billing systems, and subscription management systems

Legacy ERP systems are often product-focused, designed for one-off transactions. Adapting systems for a PaaS model requires API integration, ERP upgrades, and subscription management systems. These systems simplify recurring billing, improve customer management, and provide analytics to streamline operations. Without them, managing recurring revenue can become complex and inefficient.

Key solutions for modernizing billing and subscription management

1. Modern ERP platforms

Advanced ERP platforms like SAP Subscription Billing or NetSuite SuiteBilling are built for recurring payments, customer tracking, and service delivery, making them ideal for companies operating fully on a subscription model.

2. API integration for legacy systems

For businesses not ready for a full ERP upgrade, APIs extend the capabilities of legacy systems by connecting them to specialized tools. This cost-effective solution, used by 40% of the panel, enables recurring payments and customer engagement without replacing existing systems.

3. Subscription Management Systems

Tools like Zuora, Chargebee, or Billwerk streamline subscription processes, including billing adjustments, upgrades, and renewals. These systems integrate with ERPs and provide key metrics like churn, Customer Lifetime Value (CLV), and Monthly Recurring Revenue (MRR), helping to optimize subscription performance.

4. Custom in-house solutions

While 20% of companies developed in-house tools for managing pricing or subscriptions, this approach often proves time-intensive and costly. Companies B. and D., which struggled with the transition, developed an in-house specialized quoting tool. After spending many months creating it, the person responsible for driving the change ultimately recommended against this approach. Instead, they relied on existing tools, which would free up time to focus on other areas within the company.

Why Subscription Management Systems Are Essential

Subscription management systems simplify complex processes like tiered pricing, usage-based billing, and renewals while supporting customer lifecycle management. They also provide insights on churn, MRR, and CLV, enabling businesses to refine strategies.

In conclusion, digital solutions play an essential and transformative role in enabling the transition to PaaS models. They not only ensure the seamless integration and operation of connected systems but also provide the scalability, efficiency, and customer-centric insights needed to fully realize the value of these new business approaches.



6. Conclusion

This whitepaper demonstrates how companies are successfully adopting the PaaS model and the transformative changes required to implement it effectively. Key success factors include securing executive buy-in, embracing digitalization, designing flexible pricing strategies, building strong customer relationships, and defining actionable KPIs. Among these, executive buy-in is absolutely critical- without leadership commitment, the cultural and operational shifts necessary for PaaS cannot take root. Strong leadership ensures alignment across the organization, fosters collaboration, and drives the long-term vision required for success.

These elements are deeply interconnected, with progress in one area often driving advancements in others. For example, executive leadership often spearheads digitalization and customer-centric strategies, which in turn provide critical data to refine pricing approaches. This integration can enable shifts toward value-based pricing that reflects measurable customer outcomes. Addressing these factors holistically allows businesses to unlock the full potential of the PaaS model, positioning them to thrive in a rapidly evolving market while creating sustainable value for all stakeholders.

Looking ahead, further research could explore the implementation of PaaS models by intermediaries such as distributors, rather than directly by manufacturers. While this whitepaper focuses on manufacturer-to-client implementations, many real-world scenarios involve intermediaries, introducing additional layers of complexity. Analyzing these cases could uncover insights into the model's adaptability, challenges, and broader applicability. This represents a valuable opportunity for future study to extend the PaaS framework to diverse market structures and industries.

With executive leadership driving the effort and a commitment to innovation, businesses can overcome challenges, foster deeper customer engagement, drive sustainable, service-based growth, and stay ahead.

7. P2S Management Consulting: Your Partner in Subscription Transformation

"P2S" stands for "Products to Subscriptions"

P2S Management Consulting is a global boutique consultancy specializing in helping manufacturers and B2B hardware companies transition to Product-as-a-Service (PaaS) models. With deep industry expertise, proven methodologies, and a presence across Europe, the Americas, and Asia, we supported 35+ clients in developing and scaling recurring revenue businesses.

Driving Business Model Innovation

We guide companies in shifting from one-time product sales to subscription-based offerings—enhancing competitiveness, sustainability, and revenue predictability. Our proprietary frameworks, the Subscription Action Plan™ and Subscription Experts Ecosystem™ (SEE), provide the tools and expertise for a seamless, high-impact transformation.

A Proven Framework: The Subscription Action Plan™

Adopting an 'as-a-Service' model is complex. Our Subscription Action Plan™ is a structured, step-by-step roadmap guiding companies from concept to market launch. With insights from 300+ case studies, this approach combines best practices with real-world execution strategies.

Key focus areas include:

- Selecting the right products for a subscription model
- Developing flexible, value-driven pricing strategies
- Designing scalable financing models
- Mitigating operational risks
- Drafting clear, customer-centric contracts
- Crafting tailored go-to-market strategies

Through 20+ specialized workshops, we ensure companies are equipped to build, launch, and scale successful subscription models.

Expert network: The Subscription Experts Ecosystem™

To complement our strategic framework, the Subscription Experts Ecosystem™ connects clients with over 20 specialized service providers, partners, and tools—helping overcome operational, technological, and regulatory challenges.

The SEE includes:

- Financiers specializing in subscription-based business models
- IoT and technology partners for digital integration
- Legal advisors for compliance and robust contracts
- A comprehensive toolbox with TCO calculators, contract templates, and pricing models

By leveraging the SEE, companies gain access to the right expertise and tools—ensuring a smooth, scalable, and compliant PaaS transformation.

A Tailored Approach, A Shared Commitment

We recognize that successful transformation requires both speed and precision. Our 9–18 month approach balances agility with strategic depth, ensuring businesses launch, scale, and refine their subscription models effectively. Whether you're introducing your first subscription or optimizing an established model, we tailor our strategy to your unique goals.

Let's transform your business together.

P2S Management Consulting is your trusted partner in the subscription economy. Contact us today to unlock your full potential and build a future-proof, recurring revenue model.

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9. ACKNOWLEDGEMENTS

This whitepaper would not have been possible without the valuable insights and generous time of the many individuals who contributed their expertise during interviews and research.

We would like to extend our sincere thanks to the following contributors and interviewees for sharing their knowledge and perspectives:

- **Stefan Borgquist** - formerly at **Electrolux**, now Business Strategist, Electricity Market at Norrtälje Energi
- **Dr. Cyprian Bruck** – CTO, **Linxfour**, a thought leader in financing for Equipment-as-a-Service and Pay-per-Use models
- A **Product-as-a-Service Strategy Leader** at **Hilti**, who shared valuable insights contributing insights on PaaS metrics and software positioning
- **Joni Kotipelto**, whose perspectives contributed richly to this research, especially in the context of emerging **Quality-as-a-Service** (QaaS) business models for deep-tech solutions

Several other experts also contributed significantly to this work but have chosen to remain unnamed. We fully respect their wishes and are equally grateful for their openness and support throughout this process.

Thank you all for helping shape this work with your expertise and thoughtful perspectives.

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- Conducted in-depth interviews and supported research for the whitepaper on subscription and As-a-Service models.
- Mapped dozens of real-world examples across B2B industries, focusing on pricing, sales, sustainability, and digital transformation.

Let's talk about your Product-as-a-Service ambitions. [Schedule a call here.](#)



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Transform your product sales into recurring subscription and As-a-Service offerings.