ValiDeck Product Development Strategy

Phased development, commercialization, and investment framework for the PCX Platform

Executive Context

ValiDeck is developing PCX (Privacy-Compliant eXtensible), a proposed privacy-first protocol for structuring and reusing verified records without embedding identity. PCX-CTR is its initial implementation domain, focused on transaction records, with loyalty, verified reviews, analytics, and search among the first services built on that foundation. The initial development program will run in two phases, from defined architecture to validated implementation and controlled commercialization. Phase I will establish and validate the core data infrastructure. **Phase II** will convert the validated prototype into a market-ready PCX Platform and test the initial services with live partners. Expansion will follow only after the defined evidence thresholds are met.

Strategic Vision

ValiDeck's objective is to establish a common data infrastructure for loyalty, verified reviews, privacy-preserving search, and permitted business intelligence. This is intended to allow customers to assemble verified transaction histories across participating businesses without embedding their identity in those records. Merchants and enterprises could then provide relevant services and obtain permitted insights without expanding identity-linked customer profiles. PCX supplies the common record definitions, operating rules, and integration framework, with ValiDeck developing the initial reference implementation.

Market Problem

Transaction records are fragmented across merchants, payment providers, receipts, loyalty programs, and customer accounts. Customers cannot readily assemble or reuse a complete purchase history. Businesses see only their own transactions and often seek broader insight through identity-linked data or third-party profiles, increasing compliance exposure and weakening trust. Current approaches therefore trade data utility against privacy.

Core Thesis and Value Proposition

PCX separates the utility of a verified transaction record from disclosure of the customer's identity. A participating payment or commerce organization retains the private customer relationship, while PCX operates on privacy-protected records under defined permissions. This foundation supports four initial product categories:

- **Customer-controlled purchase history —** a consolidated record retained under customer control and reusable across participating businesses.
- **Transaction-verified reviews —** feedback supported by evidence of purchase.
- **Privacy-preserving loyalty —** rewards based on permitted history without disclosure of unrelated activity.
- **Business intelligence —** group-level analysis based on verified transactions rather than identity tracking.

PCX is not positioned as an isolated loyalty or analytics application. It is shared infrastructure for differentiated services developed under consistent privacy rules.

Platform Development Scope

PCX-CTR combines standardized records, reusable provider integrations, a permission-governed platform, and an application framework. Together, these elements make records from different businesses usable under a consistent commercial and privacy model. ValiDeck has developed the core architecture and Phase I design. PCX has received two U.S. patent grants (US12125054B2 and US12749086B2), plus grants in Australia, and India. The working prototype has not yet been built. Phase I will produce the independently reviewed, partner-ready evidence required for Phase II.

Product Development Roadmap

The roadmap comprises two sequential funded phases followed by evidence-based expansion. Each phase has a defined objective, delivery package, and investment decision.

Phase I — Establish the Core Data Platform

Phase I is a USD 1 million, 24-month program designed to establish the technical and operating foundation of PCX-CTR. It will:

- **Build a complete working prototype —** using simulated transactions from multiple source formats rather than live commercial data.
- **Test the privacy model —** assessing whether the PCX Platform can organize continuing transaction histories without holding the customer's identity, including linkage risks, access controls, and recovery.
- **Demonstrate initial services —** purchase history, transaction-verified reviews, loyalty, and permitted group-level analysis.
- **Develop a reference integration —** showing how a selected commerce environment can connect to the PCX Platform and how responsibilities are divided among participants.
- **Produce independent evidence —** including privacy, security, and operating reviews, together with a controlled-pilot plan and the detailed execution plan for Phase II.

The Phase I outcome will be an independently reviewable prototype and partner package. It will not be a public launch or a production system using live commercial transaction data.

Use of Phase I Capital and Decision Gate

Phase I funding will be directed principally to prototype engineering, reference integration, independent privacy and security review, operating-model design, and preparation of the partner and pilot package. It will not fund broad sales expansion, mass customer acquisition, or production-scale operations. Its purpose is to convert the architecture and patent portfolio into evidence that partners, reviewers, and investors can examine.

Progression to Phase II will require a functioning prototype, repeatable treatment of representative transaction formats, credible privacy and security findings, a workable division of responsibilities, and credible partner interest in a controlled pilot. Before the build, the work plan will define measurable acceptance criteria for record accuracy and completeness, processing performance at stated test loads, access control, account recovery, and integration effort, together with the re-identification risks to be tested. The proposed pilot must identify the paying organization, budget owner, initial service, integration scope, and measures of success. Weak results will trigger revision of the design or partner model before the larger Phase II budget is committed.

Phase II — Commercialize and Expand

Subject to satisfaction of the Phase I decision gate, Phase II is expected to require USD 3 million over 24 months. Its purpose is to convert the validated PCX-CTR prototype into a market-ready PCX Platform and determine whether the model can operate successfully with live partners, customers, and commercial transaction data. It will:

- **Convert the prototype into a market-ready PCX Platform** — strengthening production security, reliability, operating controls, and deployment readiness.
- **Establish live partner integrations** — connecting PCX to participating commerce and payment organizations through production-capable interfaces rather than simulated or reference environments.
- **Operate controlled commercial pilots** — using real participants and transaction flows within defined operational, privacy, and regulatory limits.
- **Deploy the initial PCX services in controlled pilots** — customer-controlled purchase history, transaction-verified reviews, privacy-preserving loyalty, permitted business intelligence, and privacy-preserving search.

- **Measure commercial viability** — evaluating adoption, customer value, partner responsibilities, willingness to pay, operating cost, service performance, and the commercial case for wider deployment.

The Phase II outcome will be a market-ready PCX Platform, functioning partner integrations, controlled-pilot evidence, and a demonstrated basis for commercial expansion. Wider deployment will proceed only if the technical, operating, and commercial results justify additional investment.

Longer-Term Expansion

As participation grows, ValiDeck expects to extend the same privacy and operating framework to additional categories of authoritative records. Expansion will proceed one category at a time, only where trusted data sources, clear permission rules, commercial demand, and a credible operating partner are present. Each new category will be required to meet the same standards for record integrity, customer control, independent review, and defined commercial use.

In parallel, ValiDeck intends to advance PCX as a proposed interoperability framework through appropriate European standards and regulatory channels. ValiDeck's PCX Platform would remain the initial reference implementation; any future standards governance would be institutionally separate from the company.

Go-to-Market and Partner Strategy

ValiDeck will develop the PCX Platform and its partner network in parallel. Rather than integrate with merchants one by one, the initial go-to-market strategy will focus on payment, commerce, and technology organizations that already connect to large numbers of merchants. A single successful integration with such a partner could provide a pathway to many merchants, reducing the cost and complexity of deployment.

During Phase I, ValiDeck will also engage independent privacy and security reviewers and begin discussions with organizations that could participate in a controlled pilot. These discussions are intended to test the operating model, identify integration requirements, and determine whether suitable partners are willing to assume the roles required by PCX. No prospective relationship will be presented as committed until a formal agreement has been executed.

This approach is intended to prove not only that PCX can be integrated technically, but that the integration model can be repeated efficiently. Phase I capital will therefore be concentrated on a small number of strategically important integrations and reviews rather than on building a large merchant-sales organization. The objective is to demonstrate a route from prototype validation to partner integration and, ultimately, to commercial pilots without requiring ValiDeck's implementation cost to grow in direct proportion to the number of participating merchants.

Illustrative First Deployment

The proposed first commercial deployment is a Phase II pilot with a point-of-sale (PoS) software provider and a small group of independent merchants already using its system. The PoS provider would contract with ValiDeck for the PCX integration and platform service, then offer the loyalty service to those merchants. A participating card issuer would support customer enrolment and linkage of registered cards, with the required payment-channel interfaces agreed before launch. Merchants would supply item-level transaction records through the provider's connector. ValiDeck would supply the PCX reference implementation and agreed operating support. This is an illustrative deployment model to be tested with partners.

For example, a brand could fund a reward after three qualifying purchases of its products across the participating stores: two purchases at Store A and one at Store B would count toward the same reward. A customer would enrol once with PCX and use registered cards at participating merchants; the resulting records would support reward accrual under the customer's pseudonymous account. PCX would evaluate the campaign against permitted transaction-derived data and return the eligibility and redemption information needed to issue the reward. The brand and each merchant would receive the permitted result without receiving the customer's unrelated purchase history. This

gives the customer a reward earned across stores and gives the brand a way to run a campaign across independent retailers.

In this example, the brand would fund the rewards, participating merchants would pay the PoS provider for the loyalty service, and the provider would pay ValiDeck an integration fee plus recurring platform and support fees. The provider's business case is additional service revenue across its installed merchant base. The merchant's business case is enough additional sales or repeat visits to justify the service fee and staff effort. Campaign funding, merchant charges, ValiDeck's fees, and operating responsibilities would be agreed before the pilot.

Before launch, the parties would agree a pilot period, comparison method, and numerical targets. Measures would include the share of invited customers who enrol and make a qualifying purchase; repeat purchases and reward redemptions; merchant and sponsor continuation; and integration and support cost per merchant. The comparison with the existing loyalty process or an agreed comparison group should show whether the campaign generates enough additional sales or repeat visits to justify its reward and service costs. Wider rollout would require merchants willing to pay, a sponsor willing to fund further rewards, and service revenue sufficient for the provider to cover ValiDeck's fees and its own delivery costs. ValiDeck would also test whether integration fees cover deployment costs and recurring fees cover the costs of operating, maintaining, and supporting the contracted service, and how those costs change as the same integration serves more merchants. The next deployment would extend the same integration to more of the provider's merchants.

Business Model

ValiDeck expects to generate revenue from infrastructure and services, not from selling customer records or unrestricted access to identity-linked transaction data. Principal revenue categories are expected to include:

- **Platform and integration revenue —** implementation, licensing, operating, and service-level fees from participating providers and organizations.
- **Application revenue —** fees for loyalty, verified-review, search, and related customer or enterprise services.
- **Information-service revenue —** usage-based fees for permitted business insights and analytical outputs produced under defined privacy and access rules.
- **Professional and brokerage services —** specialized support for high-trust sectors and verified matching among customers, businesses, and service providers.
- **Device-based offerings —** pursued only where strategic co-development with established hardware or secure-technology partners is justified.

The revenue streams are expected to emerge in stages. Integration and professional-service revenue may arise first as partners adopt and configure the PCX Platform. Recurring platform, application, and information-service revenue will depend on successful pilots, growing record coverage, and continuing customer and partner use. The model therefore does not assume immediate scale; it assumes that validated infrastructure creates progressively stronger commercial options.

PCX's proposed independent governance would define common requirements for record formats, privacy, access, and interoperability. ValiDeck would develop and supply the software that implements those requirements. A payment or commerce provider would pay ValiDeck to connect that software to its own systems and would pay recurring fees for the software and the operating, maintenance, and support services covered by its contract. For example, the PoS provider described above would buy the PCX integration and ongoing service needed to offer the cross-merchant rewards feature to its merchants. Providers could build their own applications on this infrastructure or pay for ValiDeck's loyalty, verified-review, or analytics services. The reason to buy from ValiDeck would be to reduce the engineering, validation, and operating work needed to deliver those services. Each contract would specify the software licence, responsibilities, service levels, and fees.

Defensibility

ValiDeck's granted and pending patent rights provide the initial legal foundation. Long-term defensibility is expected to arise from the combined effect of the reference implementation, reusable

integrations, standard tests, operating knowledge, independent-review credibility, verified record coverage, and a growing application and partner ecosystem. These assets reinforce one another and become progressively more difficult for a later entrant to reproduce.

The purpose of Phase I is to begin converting legal protection into practical execution assets: tested reference components, documented roles and responsibilities, independent evidence, and partner knowledge. Patent rights establish the initial legal position, but they do not by themselves create a deployable platform or a repeatable route to market. The development program is designed to build those complementary assets in a disciplined order.

Strategic Timing and Positioning

Demand for personalized services continues to grow while regulation, compliance cost, and public concern constrain identity-dependent data collection. ValiDeck is positioned to address both requirements by providing verified commercial intelligence without making unrestricted identity accumulation the basis of the business model. The company is therefore developing a privacy-preserving data foundation, beginning with loyalty, search, and commerce rather than optimizing the prevailing identity-based model.

ValiDeck's timing does not depend on displacing the prevailing data economy at once. The initial opportunity is to prove that selected high-trust services can be delivered with less identity exposure and stronger evidence. A narrow, successful deployment can then serve as the reference for additional partners and record categories.

Investment Logic and Principal Risks

The staged financing structure is intended to resolve the principal technical, partner, and market uncertainties before substantial commercial expansion. Progression to Phase II will depend on evidence that the PCX Platform satisfies defined privacy and performance requirements, that a repeatable integration model is credible, and that prospective partners and users recognize sufficient value. The development program will address six principal risks through staged testing, partner validation, and funding decisions:

- **Privacy and security risk —** record linkage, compromised keys, or access-control failures may expose protected records or enable re-identification.
- **Partner risk —** a suitable payment or commerce participant may not accept the required operating role.
- **Integration risk —** differences among provider systems may limit repeatability or increase cost.
- **Utility risk —** privacy constraints may reduce the usefulness of available services or business outputs.
- **Adoption risk —** customers and organizations may not change established behaviour despite technical success.
- **Execution and funding risk —** recruiting the required team, controlling scope and costs, and securing Phase II funding may delay delivery or prevent progression.

This structure gives investors identifiable decision points rather than requiring a single commitment to full commercial scale. Phase I tests whether the foundation can be implemented and independently validated. Phase II tests whether it can be operated with live partners and converted into recurring commercial value. Expansion follows only when both propositions have been demonstrated.

The investment proposition is not premised on immediate market-wide adoption. It is premised on converting patented and patent-pending technology into independently reviewable evidence, a repeatable partner model, and a disciplined basis for commercial scale.