

# Treasury Proposal: Infrastructure Funding for Polkadot Asset Hub - NFT Pallet Integration, Landing, Gallery, Minting & other Components

**Proponent:** [Damsky](#), KodaDot COO

[[15VmrRmgPhKMfBaniS5ei4dCcVL54GMLCfnVRryynSYzvyyS](#)]

**Date:** 22.12.2024

**Requested DOT:** \$530,000 in \$DOT, which equals **71,842** \$DOT as of EMA7 22.12.2024 (day of submission)

**Short description:** This proposal aims to fund native Polkadot NFT infrastructure enabling seamless onboarding, minting, transfers and composability in Polkadot & Kusama Asset Hub, closing gaps hampering next-generation use cases.

**Project Category/Type:** Infrastructure ▾ Open source ▾

## Previous treasury proposals:

- <https://kusama.polkassembly.io/treasury/68>
  - <https://kusama.polkassembly.io/treasury/107>
  - <https://kusama.polkassembly.io/referenda/220>
  - <https://polkadot.polkassembly.io/referenda/93>
  - Current proposal discussion: <https://polkadot.polkassembly.io/post/2043>
  - [Milestone demos](#)
-



**KODOT.**

## [Changelog](#)

### [1. Background](#)

[1.1. Context of the proposal](#)

[1.2. Problem statement](#)

[1.3. Preliminary Discussions and Research](#)

[1.4. Introducing the Kodadot team](#)

[Yangwao and Viki, the co-founders of KodaDot, bring extensive blockchain and NFT expertise.](#)

[The core KodaDot team also includes:](#)

[1.5. Demystifying the NFTs Pallet and components - What's that?](#)

[1.6. What's in it for stakeholders?](#)

### [2. Proposal Details](#)

[2.1. Objectives](#)

[2.2. Solution](#)

[2.3. How do the Polkadot stakeholders benefit from this solution?](#)

[2.4. Milestones](#)

[2.4.1. Milestone 1: Integration of the NFTs pallet version 1](#)

[Milestone 1: Integration of the NFTs pallet version 1](#)

[2.4.2. Milestone 2: Landing page components integration \(Working name\)](#)

[Milestone 2: Landing page components](#)

[2.4.3. Milestone 3: Gallery](#)

[Milestone 3: Gallery](#)

[2.4.4. Milestone 4: Mint](#)

[Milestone 4: Minting](#)

[2.4.5. Milestone 5: Profile](#)

[Milestone 5: Profile & Profile navigation](#)

[2.4.6. Milestone 6: Transfer, Asset Teleportation, Identity management, Cart Management](#)

[Milestone 6: Transfer, On-Chain identity, Cart Management, Mass-features](#)

[2.4.7. Milestone 7: XCM Auto-Teleport](#)

[2.4.8. Milestone 8: Maintenance](#)

[Milestone 8: Maintenance & Marketing](#)

[2.5. Timelines](#)

[2.6. Budgets](#)

[3. Proposal report](#)

[3.1. Quantitative Metrics:](#)

[3.2. Qualitative Metrics:](#)

[3.3. Communication:](#)

[4. Payment conditions](#)

[4.1. Requests](#)

[4.2. Developments](#)

[4.3. Contingencies](#)

[4.4. Submissions](#)

[4.5. Targets](#)

[4.6. Accounts](#)

[4.7. Communications](#)

[5. Comments, Qs&As](#)

[6. Why Polkadot Network?](#)

[7. We'd love to hear about how you got to know about the Polkadot on-chain treasury.](#)

## **Changelog**

---

---

## 1. Background

We are proposing further development of the Polkadot Asset Hub to implement critical NFT capabilities that effectively welcome and onboard the growing Web3 NFT community. The Asset Hub is the centerpiece for next-generation digital asset utilities within Polkadot.

As engagement rapidly expands around NFTs, tailored infrastructure and user experiences are essential to seamlessly support newcomers - whether creators minting their first works, developers building interfaces, or collectors entering web3.

Unlocking robust NFT functionality on Asset Hub will establish an accessible hub welcoming all who wish to harness these digital building blocks. The newcomer-focused design, from intuitive visual components to understandable documentation, aims to catalyze community growth by empowering all participants with state-of-the-art tools.

[KodaDot](#), as the [top Polkadot dApp](#) according to GitHub metrics, has the ideal expertise to undertake this development. Our core team and community of 100+ open source developers have specialized skills in Substrate, NFT infrastructure, and UI/UX design.

KodaDot's nft-gallery is an open source, public good project delivering high quality NFT infrastructure and marketplace components. With over [\\$400k distributed in public bounties](#), it has an active community of contributors creating value for the Polkadot ecosystem. By applying our technical experience, we will develop tailored solutions to unlock the full potential of NFTs on the **Polkadot Asset Hub**.

### 1.1. Context of the proposal

This proposal requests funding to develop key infrastructure and components for the Polkadot Asset Hub to effectively support NFT activities.

While the data migration of experimental Kusama NFTs has been completed, additional work remains to properly equip Asset Hub as a multi-chain hub for next-generation NFTs.

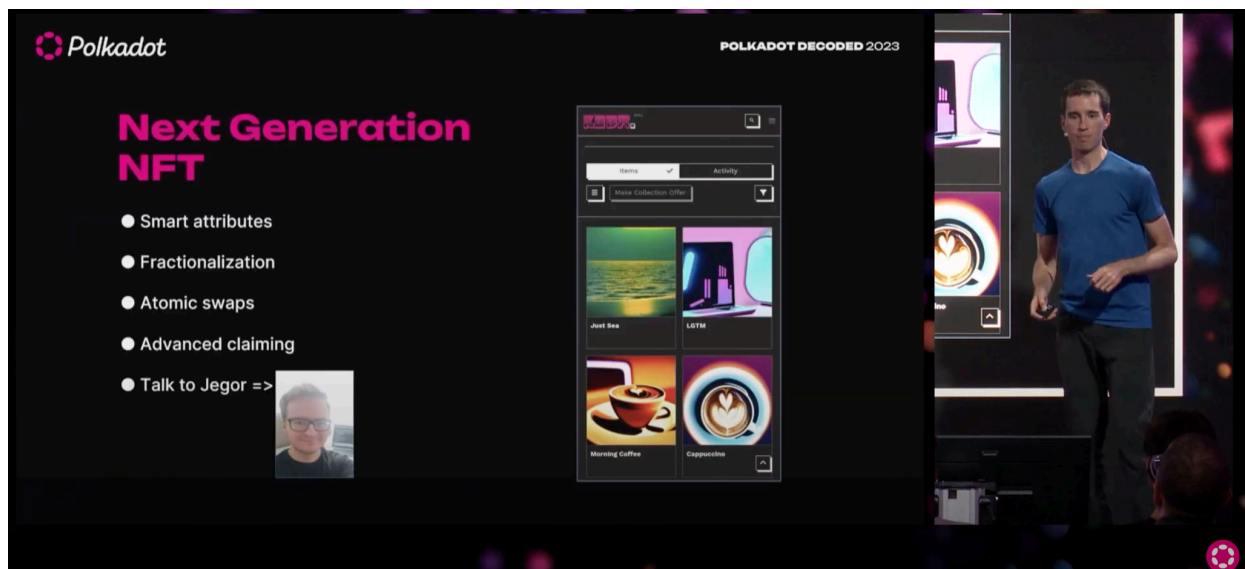
Specifically, core interfaces, tools and capabilities need to be built natively into the Substrate runtime to empower creators, owners, and applications in realizing the full possibilities enabled by interoperable NFTs.

Our team at KodaDot has extensive experience building robust NFT solutions tailored for Substrate chains. We have led development of the open-source nft-gallery toolkit which is already utilized by projects across Kusama and Polkadot.

With the requested funding, we will leverage this specialized expertise to:

- Integrate the advanced NFTs pallet to enable key functionality like minting and trading
- Develop required UI/UX components for interacting with collections
- Ensure complete feature parity between chains for composability
- Allow true multi-chain NFT portability across the Polkadot ecosystem
- Provide a seamless experience that delights both creators and owners


The goal is to establish a best-in-class NFT environment natively within Polkadot, ushering in the next evolution of digital ownership and creative expression.



Check out [Joe Petrowski's talk](#) at Polkadot Decoded 2023, mentioning next generation NFTs on Asset Hub and a glimpse of our UI.



**Polkadot**  @Polkadot · Nov 24 ...

Yesterday, over 1000 NFTs from [@KodaDot](#)'s SWIRL collection were minted in under 30 minutes 

Didn't get one?

Follow [@KodaDot](#) and [@Polkadot](#) to stay up-to-date on the next mint...

 **KodaDot**   @KodaDot · Nov 23

Newest generative art drop of 1024 pieces minted out rapidly in 30 mins on @Polkadot Asset Hub!

If you managed to claim one of these NFTs from the "Swirls" collection, list it now on @KodaDot marketplace while you can!...

[Show more](#)

Network:	<b>PolkadotHub</b>	Floor:	<b>9 DOT</b>
Items:	<b>1024</b>	Volume:	<b>32.4 DOT</b>
Owners:	<b>1022</b>		

 45

 118

 573

 61K

Monthly Active Users Across Polkadot					Search...
	Chain	Monthly Active Users (Nov 2023)	1Month Chg	3Months Chg	
1	Polkadot	109939	28.32%	71.44%	
2	Moonbeam	92162	29.79%	51.56%	
3	Nodle	23310	7.33%	59.35%	
4	Astar	20660	2.42%	28.05%	
5	Acala	13619	2.62%	267.39%	
6	Unique	8330	0.82%	2259.77%	
7	Parallel	6228	31.53%	167.76%	
8	Centrifuge	2919	68.83%	68.63%	
9	HydraDX	1968	27.38%	116.50%	
10	Interlay	1684	33.23%	38.60%	
11	KILT	1528	75.83%	54.50%	
12	Bifrost	1427	8.02%	109.24%	
13	AssetHub	871	19.15%	99.77%	

## 1.2. Problem statement

While Polkadot is positioned to enable the next generation of NFTs, several gaps exist in its current capabilities:

- Native NFT minting and trading functions are severely limited within the Polkadot Asset Hub and besides us there is no good reliable UI.
- Critical interfaces for activities like viewing collections, tracking provenance, and showcasing NFTs are non-existent.
- Restricted feature sets hinder advanced applications of NFTs needing composability, nesting, and dynamic attributes.
- Fragmented experiences across disconnected platforms hamper seamless interoperability.
- There are no turnkey solutions allowing creators to harness Polkadot's cross-chain potential.

In summary, foundational work remains to transform Polkadot's Asset Hub into a high-functioning hub for the open Web3 ecosystem. Right now, building advanced NFT projects natively on Polkadot is difficult.

Filling these gaps is essential for establishing Polkadot as the preferred base layer for the next paradigm of digital ownership, creativity, and community engagement.

### **1.3. Preliminary Discussions and Research**

We have been closely involved in NFT communities across Polkadot and the wider Web3 space. Through forums, conferences, and working groups, we identified significant enthusiasm for expanding NFT capabilities natively within Polkadot.

Discussions emphasized that creators desire features like customizable metadata, on-chain provenance tracking, interoperable environments, and composable architectures. Developers want toolkits that simplify building next-generation NFT experiences.

Our research into leading pallets highlighted advanced functionalities around nested NFT hierarchies, modular attributes, and partial fungibility. New standards are emerging around interchangeable environments and artifacts bridging multiple metaverses.

This proposal draws inspiration from the community's needs and substrate's capabilities. By combining our learnings with direct feedback from ecosystem participants, we can deliver solutions pushing the boundaries of digital ownership and creative engagement on Polkadot.



## 1.4. Introducing the Kodadot team



**Yangwao**  
Founder



**Viki Val**  
Co-founder and  
CTO



**Damsky**  
COO



**Luu**  
Artist relations  
& QA



**Exez**  
Design, UX & UI

- [Yangwao](#) - Founder
- [Viki Val](#) - Co-founder and CTO
- [Damsky](#) - COO
- [Luuuu](#) - Artist relations & QA
- [Exez](#) - Design, UX & UI

**Yangwao and Viki, the co-founders of KodaDot, bring extensive blockchain and NFT [expertise](#).**

- **Yangwao** is a seasoned Substrate developer. He created the first Substrate account generation tool, [Subket](#), and co-developed [vue-polkadot.js](#) - a library of Vue components for interacting with Polkadot.

- 
- **Viki** is a full-stack developer who has experience building Ethereum and Polkadot projects, including early NFT infrastructure on Kusama.

### **The core KodaDot team also includes:**

- **Damsky**, COO - 4+ years in community growth and marketing in Web3. Led community initiatives for prominent Ethereum & Polkadot projects and events. **Polkadot Ambassador**.
- **Luuu**, Artist Relations - Digital artist with savvy understanding of NFT creator needs. Curator of various **online/offline Polkadot NFT galleries**. Polkadot Ambassador.
- **Exez**, Design Lead - Young & creative UI/UX designer with **years of experience** in Web3. Created intuitive interfaces for multiple dApps, wallets & projects.

With our combined expertise in areas like Substrate, NFTs, community growth, design and curation, the KodaDot team is well-qualified to build innovative solutions tailored to the Polkadot NFT ecosystem.

In addition to the core team, KodaDot has an **open-source developer community with [over 100](#)** contributors. This developer network allows KodaDot to tap into diverse talent and expertise to deliver robust NFT solutions tailored for Kusama and Polkadot.

The combination of the talented core team and large open-source developer community enables KodaDot to build high-quality NFT products that meet the needs of the ecosystem.

## **1.5. Demystifying the NFTs Pallet and components - What's that?**

The NFTs pallet provides the backend functionality for core NFT operations like minting and transferring. But users interact with front-end components that leverage the pallet's capabilities.

For example:

- The pallet enables minting new NFTs with unique properties. A minting component would provide an interface for users to actually generate the NFTs.

- 
- The pallet facilitates recording NFT ownership changes on-chain. A transfer component would allow users to securely exchange NFTs.
  - The pallet supports adding flexible metadata to NFTs. A galleries component would display that metadata like images, descriptions, etc.

So in essence, components are the front-end interfaces and experiences that utilize the back-end functionalities provided by the NFTs pallet.

By natively integrating both the pallet and associated components into Polkadot's Asset Hub, we can deliver a full-stack NFT environment within the network. This empowers end-users like creators and collectors to access the capabilities they need through intuitive components tailored specifically for Polkadot.

## **1.6. What's in it for stakeholders?**

Fully integrating NFT capabilities into the Polkadot Asset Hub via the NFTs pallet stands to benefit various stakeholders:

- **Polkadot Ecosystem:** Bolstering NFT utility strengthens Polkadot's position as a multi-chain hub for next-generation digital assets and applications.
- **Validators:** Expanded functionality drives usage and transactions, increasing opportunities for validation and associated fees.
- **NFT Creators:** Unlocking robust tooling empowers creators to leverage Polkadot's interconnected landscape.
- **NFT Collectors:** Owners can utilize NFTs to their full potential, benefiting from composability and interoperability.
- **DeFi Protocols:** Composable NFT components and data could enable new crypto-financial products and services.
- **Developers:** The versatile pallet expedites building custom dApps and interfaces tailored for Polkadot.

---

Establishing a best-in-class NFT environment natively on Polkadot can significantly expand overall network utility and value. This benefits stakeholders across the ecosystem while advancing Web3 innovation.

---

## **2.Proposal Details**

### **2.1. Objectives**

The primary objective of this proposal is to develop core infrastructure and components for enabling robust NFT capabilities natively within the Polkadot Asset Hub.

Specific goals include:

- Integrating the NFTs pallet into the Asset Hub to unlock key functionalities like minting, transferring, and trading
- Building required UI/UX components for creating, showcasing, and managing NFTs
- Ensuring support for advanced features like nested NFTs and composable structures
- Allowing true cross-chain interoperability for NFTs across the Polkadot ecosystem
- Providing delightful experiences that drive adoption among creators and owners
- Establishing Polkadot as the preferred base layer for next-generation NFT projects and ecosystems

By methodically addressing fundamental gaps, this proposal aims to transform Polkadot into a high-functioning hub for open and interoperable NFT innovation.

### **2.2. Solution**

Our solution involves integrating the NFTs pallet, which is already included in the Polkadot Asset Hub runtime, into the KodaDot platform to enable users to access its capabilities:

- 
- Build required UI/UX components like galleries, profiles and marketplaces that leverage the pallet's functionality.
  - Develop intuitive minting tools utilizing the pallet's minting modules to generate NFTs with customizable properties.
  - Integrate pallet-enabled peer-to-peer swaps and cross-chain bridges into KodaDot for seamless NFT trading.
  - Ensure support for the pallet's advanced features like nesting, composability, and modular metadata.
  - Cultivate a delightful user experience tailored to both technical and non-technical users on KodaDot.
  - Provide extensive documentation, tutorials, and support content around the pallet's integration.
  - Continually gather feedback from the Polkadot community to shape an optimal NFT environment.

By methodically bridging the NFTs pallet's capabilities into the KodaDot platform, we can provide the Polkadot community with access to institutional-grade NFT tools natively within their ecosystem.

### **2.3. How do the Polkadot stakeholders benefit from this solution?**









This solution delivers significant direct benefits to various stakeholders within the Polkadot ecosystem:

- **NFT Owners:** Seamless access to original functionalities allows full utilization across multiple chains. Assets become truly dynamic and interoperable.
- **Creators:** Unlocking capabilities empowers creators to reach broader audiences and tap into cross-chain possibilities.
- **Developers:** The modular architecture enables innovative dApps and secondary protocols leveraging NFT composability.

- Validators: More transactions and on-chain activity generates rewards and secures the network.
- DOT Holders: Broad utility and capabilities accelerate adoption, providing upwards price pressure on DOT.

More broadly, realizing cross-chain NFT interoperability and asset composability exemplifies Polkadot's core value proposition. This solution puts Polkadot at the forefront of the next-generation open metaverse.

## 2.4. Milestones

- 1  Integration of the NFTs pallet
- 2  Landing page components integration
- 3  Gallery
- 4  Minting
- 5  Profile & Profile navigation
- 6  Transfer, On-chain identity, Cart management
- 7  XCM Auto-teleport
- 8  Maintenance / 6 months

Milestones 1-8 as outlined below have already been completed. Details of the work delivered under each milestone can be verified by visiting the milestone reports linked here or through a tab created in our open-source repository:

- <https://github.com/orgs/kodadot/projects/10>

- 
- [Milestone demos](#)
    - [Milestone 1 report](#)
    - [Milestone 2 report](#)
    - [Milestone 3 report](#)
    - [Milestone 4 report](#)
    - [Milestone 5 report](#)
    - [Milestone 6 report](#)
    - [Milestone 7 report](#)
    - Milestone 8 report

#### **2.4.1. Milestone 1: Integration of the NFTs pallet version 1**

In this phase, we focus on integrating the NFTs pallet into the KodaDot NFT Marketplace. This integration will allow for the creation and management of NFT collections directly within the marketplace. Users will have the capability to mint new NFTs, list them for sale or auction, and set specific attributes like royalties for secondary sales.

The pallet also facilitates advanced trading functionalities and ensures that NFT metadata is effectively managed. To ensure the stability and security of these new features, rigorous testing will be conducted. Additionally, documentation will be provided to guide users on the new functionalities.

**Milestone 1: Integration of the NFTs pallet version 1**

---

### 1.1. Pallet Integration for Marketplace Enhancement

- Seamlessly integrate the NFTs pallet into KodaDot's runtime, ensuring compatibility with existing marketplace functionalities.
- Update key functionalities of the pallet according to runtime upgrades and UI

### 1.2. Collection Management for Marketplace Listings:

- Enable marketplace users to create, list, and manage new NFT collections.
- Implement features for sellers to describe and categorize their collections, enhancing discoverability on the marketplace.

### 1.3. NFT Minting and Listing Operations:

- Allow users to mint new NFTs directly from the marketplace interface.
- Integrate atomic swaps to facilitate direct NFT exchanges between users.
- Enable batch minting for creators releasing series or collections.

### 1.4. Enhanced NFT Metadata Management:

- Provide tools for sellers to enrich their NFT listings with detailed metadata and attributes.
- Implement a user-friendly interface for metadata editing and updates.

### 1.5. Advanced Trading Features:

- Integrate auction functionalities using the NFTs pallet, allowing users to list NFTs for bidding.
- Implement royalty settings, enabling creators to earn from secondary sales.

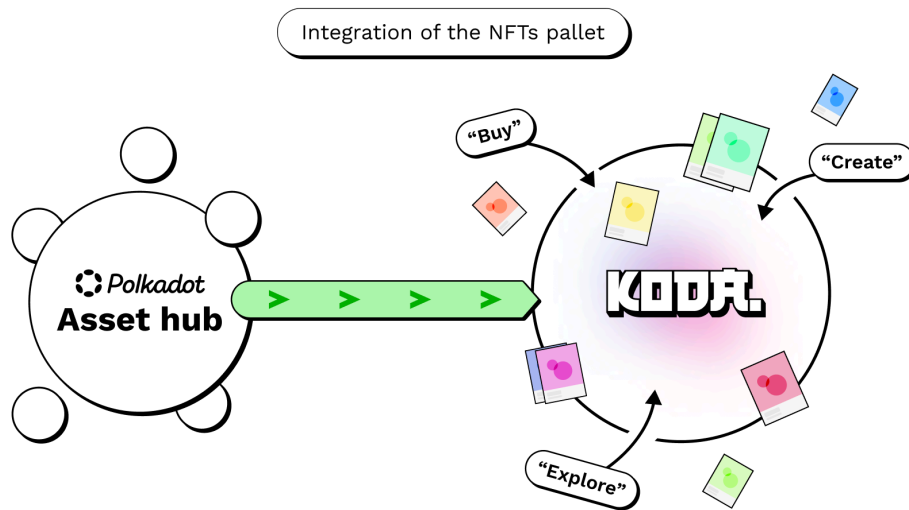
### 1.6. Testing, Security, and Validation:

- Conduct rigorous testing to ensure the integrated features work flawlessly with KodaDot's existing systems.
- Prioritize security, especially for trading and transaction operations.
- Gather user feedback for continuous improvement.

### 1.7. Documentation & onboarding:



- Produce detailed documentation outlining the new features and their benefits.
- Create user tutorials and guides to assist the Polkadot community in leveraging the enhanced functionalities.



#### 2.4.2. Milestone 2: Landing page components integration (Working name)

The landing page is a centralized hub, designed for efficiency and user accessibility. It features a dynamic Navbar for easy navigation, a precise search function, and real-time updates on NFT trends. Users can manage their multi-chain assets, execute transfers, and establish verified on-chain identities directly from the landing page. With quick links to essential resources and optimized performance, it streamlines the user's NFT experience, offering all necessary tools in one comprehensive platform.

#### Milestone 2: Landing page components

### 2.1. Navbar:

- Integrate a responsive navigation bar at the top of the landing page, providing links to key sections and features of the platform.

### 2.2. Search Function:

- Implement a robust search functionality allowing users to quickly find specific NFTs, collections, or artists.

### 2.3. Spotlight:

- Showcase highlighted NFT collections or items that are given prominence on the landing page.

### 2.4. Newest List:

- Display a dynamic list of the most recent NFTs added to the platform, providing a quick view of the latest additions.

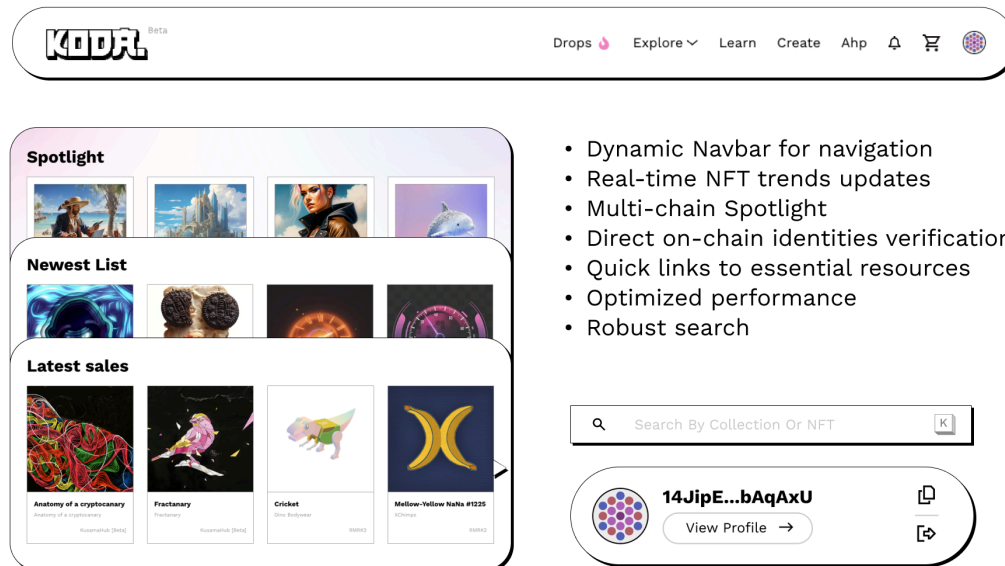
### 2.5. Latest Sales:

- Present a section that displays the most recent sales on the platform, offering insights into trending NFTs and their transaction prices.

### 2.6. User Connection and profile Navigation:

- Implement a "Connect" function for users who are not logged in, allowing them to connect their wallets or accounts.
- For users who are logged in, provide a profile navigation option to access the most needed components:
  - **"View Profile" Button:** Integrate a clearly labeled "View Profile" button, allowing users to directly navigate to their personal profile page with a single click.
  - **Copy Address Function:** Next to the "View Profile" button, provide an option for users to quickly copy their account address to the clipboard. This facilitates easy sharing and transactions.
  - **Logout/Switch Account:** Implement a logout option that also allows users to switch between different accounts, ensuring flexibility and security for users with multiple accounts.
  - **Balance Overview:** Allow users to view their balances across different chains in a structured format. Display the chain name, token type, balance, and its equivalent in USD.

- **Transfer Function:** Provide users with the ability to send tokens (e.g., DOT) to a different address. Additionally, offer a feature to create a payment link, which can be shared with others, enabling them to pay the user directly through the link.
- **Teleport Function:** Implement a function that allows users to teleport tokens (e.g., DOT) from the relay chain to the Polkadot asset hub.
- **Onchain Identity Creation:** Introduce a feature that allows users to establish an onchain identity, enhancing trust and credibility within the platform.



### 2.4.3. Milestone 3: Gallery

This milestone focuses on the integration of the gallery view and its associated components. It aims to provide users with a seamless experience while exploring various NFT collections and items on the Polkadot Asset Hub.

### Milestone 3: Gallery

### 3.1. Explore Gallery Views:

- Integrate the main gallery view that showcases various NFT collections and items.
- Display the network information, in this case, "KusamaHub [Beta]".
- Display the total number of items available in the gallery.

### 3.2. Collection Details:

- Display individual collection details such as:
  - Collection name (e.g., "Referendum 166 - 155 Collection")
  - Volume of the collection
  - Highest sale price of items in the collection
  - Number of items in the collection

### 3.3. Sort By Functionality:

- Implement sorting options for the gallery view. Allow users to sort items based on various criteria.

### 3.4. Status Filters:

- Integrate filters to allow users to view items based on their status:
  - Buy now
  - Own
  - Price
  - Popular Collections

### 3.5. Detailed Item View:

- Provide a detailed view for each item when clicked. This view displays:
  - Item name (e.g., "Shanghai Waifu")

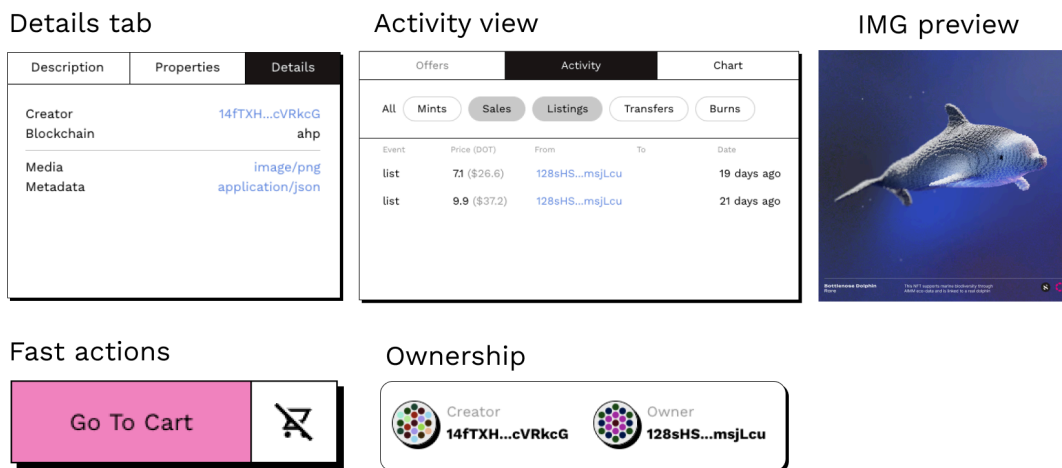
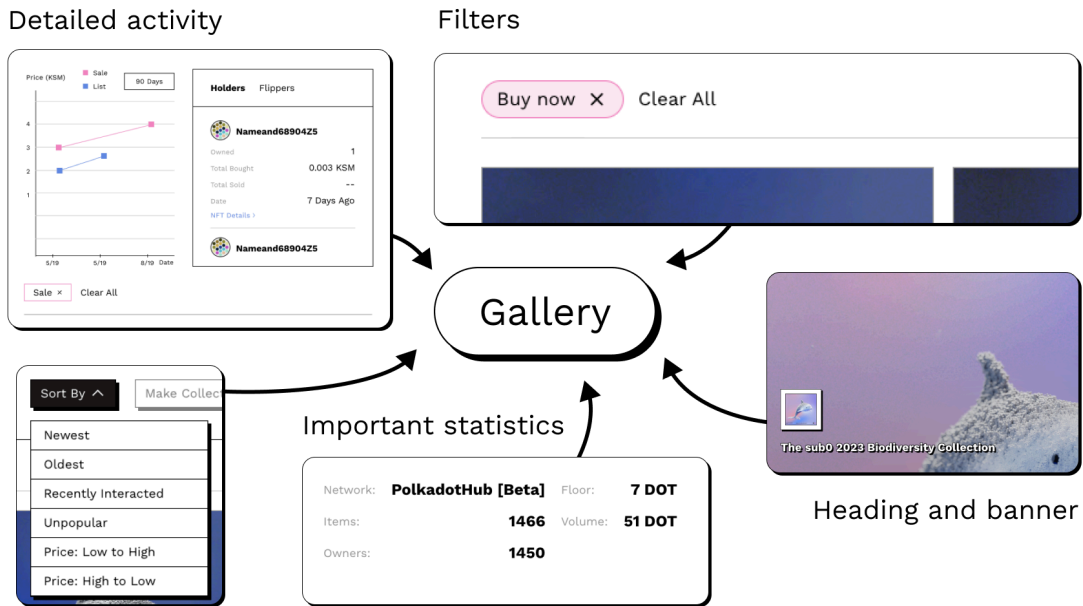
- Rarity or type of the item (e.g., "Rare", "Epic", "Common")
- Sale price and other relevant details

**3.6. Responsive Design:**

- Ensure that the gallery view is responsive and provides an optimal viewing experience across various devices and screen sizes.

**3.7. Unit Testing:**

- Conduct comprehensive unit testing to ensure that the gallery view functions correctly and displays all items and collections as intended.



## 2.4.4. Milestone 4: Mint

With this milestone, KodaDot aims to offer users a comprehensive suite of minting tools, catering to various needs – be it creating a new collection, minting a single NFT, or handling bulk

minting operations. Each component is designed with a user-friendly interface, ensuring a smooth and efficient minting experience.

## Milestone 4: Minting

### 4.1. Advanced Mint - Collection Creation:

- This component allows users to create a new NFT collection. After establishing a collection, users can then mint multiple NFTs into it.
  - Features:
    - Collection metadata setup: Name, description, banner, and other attributes.
    - Royalty settings for secondary sales.
    - After collection creation, a seamless transition to mint NFTs into the collection.

### 4.2. Simple Mint - Single NFT:

- This component is designed for users who wish to mint a single NFT without creating a collection.
  - Features:
    - NFT metadata setup: Name, description, image, and other attributes.
    - Royalty settings for secondary sales.
    - Instant minting process with a preview option.

### 4.3. Mass Minting:

- Tailored for users aiming to mint multiple NFTs simultaneously.
  - Features:
    - Bulk upload of NFT metadata and attributes.
    - Royalty and permission settings for each NFT.

- Efficient minting process to handle large quantities.

**Collection Name \***

**Collection Description (optional)**

**Maximum NFTs in collection**

Unlimited items in your collection


**Select Blockchain \***

Select the blockchain to which NFTs will be minted by default.

**Confirm Mint** ✕

Connected With YoursuperName

**Mint NFT**

 Ruffael #42  
Price: Not Listed

Into Collection → Collection Name

Fee Breakdown ^

Network Fee	0.02 KSM
Existential Deposit	0.001 KSM
Kodadot Fee	0.1% KSM
Carbonless	1 USD ~ 0.1 KSM

Fees Total: \$0.980 59KSM

[Continue To Signing](#)


Choose a collection to which you want to mint

[← Back To Onboarding](#)

**Upload Pictures**

Compress your Art files into a .ZIP file.

**Supported formats:** BMP, GIF, JPG, JPEG, PNG, SVG, TIFF, WEBP, MP4, OGV, MOV, QT, WEBM, GLB, GLTF, FLAC, MP3, JSON



Drop your file here or click to select.

**Upload Description File (Optional)**

**Overview Table**

[Mint NFTs](#)



### 2.4.5. Milestone 5: Profile

With Milestone 5, KodaDot aims to provide users with a holistic profile management experience. From showcasing their NFT collections to managing multi-chain assets and establishing a verified on-chain identity, the user profile section is designed to be a one-stop solution for all user-related activities and needs.

#### Milestone 5: Profile & Profile navigation

##### 5.1. User Profile Overview:

- This component provides a comprehensive view of the user's profile, showcasing their NFT collections, owned items, and activity on the platform.
  - Features:
    - Display of user's avatar, username, and on-chain identity.
    - Overview of the total number of NFTs owned, collections created, and recent activity.
    - Direct links to each NFT or collection for detailed viewing.

##### 5.2. Asset Management:

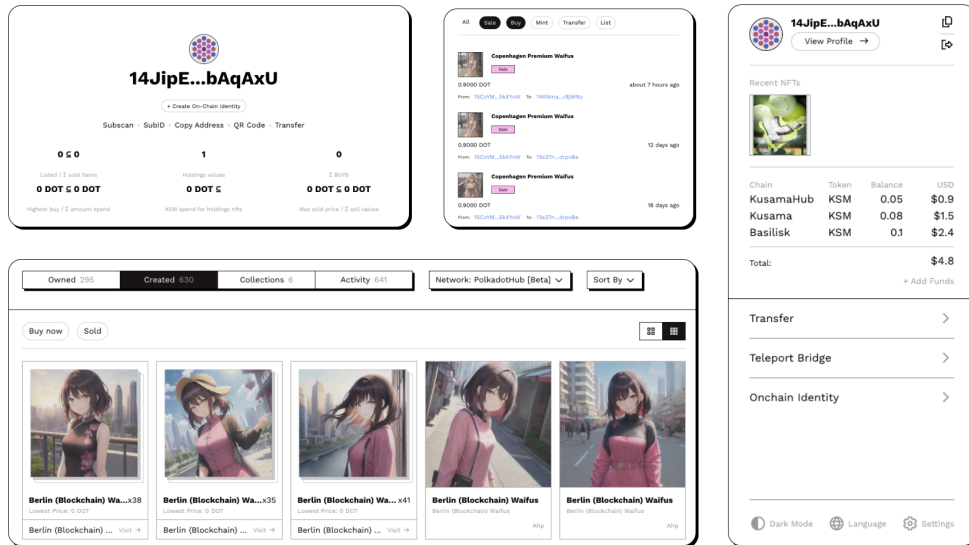
- A dedicated section for users to manage their multi-chain assets.
  - Features:
    - Consolidated view of assets across different chains, including balances and USD equivalent.
    - Transfer function: Allows users to send assets to different addresses or create payment links.
    - Teleport function: Enables users to teleport assets between chains seamlessly.

##### 5.3. Profile Navigation:

- Efficient navigation tools for users to access various sections of their profile.
  - Features:
    - "View Profile" button for direct access to the user's public profile.
    - Options to copy the user's address to the clipboard.
    - Logout and switch account functionalities for account management.

#### **5.4. Activity and History Log:**

- A section that logs all the user's activities, including minting, purchasing, selling, and other interactions on the platform.
  - Features:
    - Detailed logs with timestamps, activity type, and associated NFTs or collections.
    - Filters to sort and view specific activity types.



## 2.4.6. Milestone 6: Transfer, Asset Teleportation, Identity management, Cart Management

### Milestone 6: Transfer, On-Chain identity, Cart Management, Mass-features

#### 6.1. Asset Transfer:

- This component facilitates the secure transfer of assets between users.
  - Features:
    - User-friendly interface to input recipient address, asset amount, and optional memo.
    - Real-time fee estimation and transaction confirmation.
    - Detailed transaction history with timestamps, amounts, and recipient addresses.
    - Support for multi-chain asset transfers.

### **6.2. Asset Teleportation:**

- Enables users to seamlessly teleport assets between different chains within the Polkadot ecosystem.
  - Features:
    - Selection of source and destination chains for teleportation.
    - Input fields for specifying the amount and receiving address.
    - Real-time fee and conversion rate estimation.
    - Transaction confirmation and history for all teleportation activities.

### **6.3. On-chain Identity Management:**

- Provides tools for users to set up and manage their on-chain identity, enhancing trust and credibility within the platform.
  - Features:
    - User interface to input and edit identity attributes such as name, email, website, and social media profiles.
    - Verification badges for validated attributes.
    - Option to revoke or modify identity attributes.
    - Detailed logs of all identity-related activities and changes.

### **6.4. Mass Buying:**

- This component allows users to add multiple NFTs to their cart for a consolidated purchase.
  - Features:
    - User-friendly interface to view all NFTs added to the cart.
    - Option to add or remove NFTs with a single click.
    - Display of individual NFT prices and the total amount for the entire cart.

- Real-time updates on cart contents and total value.

#### **6.5. Mass listing:**

- **This component allows users to mint multiple NFTs at once into their collection**

## Asset Transfer

**Transfer DOT**

DOT \$4.18
KSM \$19.05
BSX \$0.00005039

You are sending **DOT** on **Polkadot AssetHub**

**Sender**  
 14JipE...bAqAxU

**Balance**  
 0 DOT = \$0

Recipient	Amount
<input type="text" value="Enter wallet address"/>	<input type="text" value="0"/> DOT

Add recipient +

**Displayed units** Transferable: 0 DOT

DOT
  USD

Network fee (\$0.01) 0.0019 DOT  
**Total** (\$0) 0 DOT

## On-chain Identity Management

**Website**

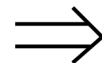
**Any Socials?**

Socials will appear on your profile page so that people can easily connect with you.

It appears you already established an onchain identity. Update it as needed (no new deposit needed) or delete to reclaim your deposit.

Exez

## Teleport



**Source Chain**

⇓

**Destination**

**Asset Amount**

KSM

Balance: 30 KSM

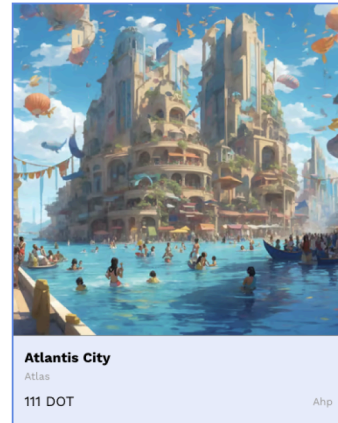
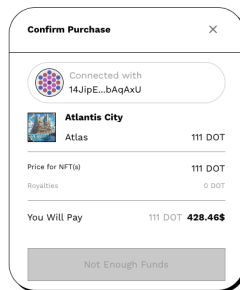
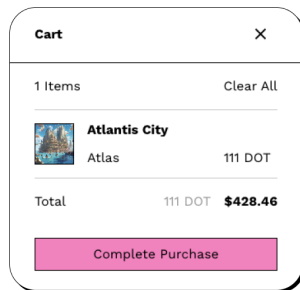
You Will Receive "Amount" On "Network"  
To [Dbix....665x4dg](#)

- Asset teleportation within Polkadot
- Chain selection feature
- Specification of amount and receiver
- Live fee and conversion rates

Cart functionality



- Cart system for multi-NFT selection
- Review option before final purchase
- Single transaction for multiple NFT purchases
- Seamless buying process incorporated



### 2.4.7. Milestone 7: XCM Auto-Teleport

Milestone 7 addresses the "Auto Teleport V1" feature, detailed in issue [#7643 by exezbz](#). This feature facilitates automatic cross-chain fund transfers, shifting assets from the user's most abundant chain to the action-specific chain. A toggle allows users to enable or disable this function. On first activation, an onboarding modal introduces users to its advantages and operational details.

#### Milestone 7: XCM Auto-Teleport

##### 7.1. Auto Teleport Integration:

- Implement the Auto Teleport feature which automates fund transfers between chains where users have the most assets to a chain where they are making the action.
- The feature can be activated or deactivated via a toggle button.

- When no funds are available on any chain, the feature will display a "Not Available" label with a tooltip icon.

#### 7.2. First-time User Onboarding Modal:

- Activated when Auto Teleport is switched on for the first time.
- The modal highlights the benefits of the Auto Teleport feature such as effortless transfers, time-saving, and a smooth experience.
- It informs users to approve an extra transaction each time the feature is needed.

#### 7.3. Signing Modal:

- Contains steps for approving transactions.
- Includes a 'Checking Funds' step to confirm the successful transfer of required funds before proceeding.
- The modal has transaction sections like Teleporting/Bridging, Checking Funds, and Buying NFT. Each transaction will have labels showing transaction states.

#### 7.4. Auto Teleport Tooltips:

- Tooltips will be displayed for users to explain the functionality and working of Auto Teleport when hovered or clicked.
- The tooltips will change based on user fund availability across chains.


#### 7.5. Transaction State Labels:

- Each transaction will have labels showing transaction states such as 'please sign', 'transaction pending', and 'completed'.
- Links to transactions will be provided which, when clicked, will open a new window on the transaction explorer.

#### 7.6. Confirmation Screen:

- A confirmation screen will be added to notify users when all operations are successful.



 **Auto Teleport** ?

Teleport And Confirm Purchase

Or + Add Funds Via Onramp

**Auto Teleport**

Low balance? Auto Teleport bridges required funds from your most asset rich network.

Extra Transaction Signature In Next Step Required

**Optimal Transfer Path**


Polkadot -> PolkadotHub (DOT)

Amount: 0.9 DOT ~16 USD

[Learn More](#)

**Teleport/Bridging**

This Transaction Will Get All Required Funds For Purchase On Required Chain


 Please Sign Transaction  
(Waiting For Your Approval)

**Checking Funds**


Verifying Fund Arrival On Destination Chain For Seamless Operations.

**Buying NFT**

When Signing This Transaction, You Will Buy Your Desired NFT


 Sign Your Transaction

## Auto Teleport




**Effortless Transfers**

Switch between networks without a worry. Auto Teleport bridges assets from your richest chain.



**Time-Saving**

No more manual asset transfers. Let us maintain your required balance for transactions



**Smooth Experience**

Relish a seamless trading experience across varied networks at a toggle-switch away.

### 2.4.8. Milestone 8: Maintenance

---

Milestone 8 is centered on the comprehensive maintenance and support of the Polkadot Asset Hub, including its critical components and functionalities. Over six months, the focus will be on maintaining and enhancing performance, security, and user experience. Key maintenance activities include:

<b>Milestone 8: Maintenance &amp; Marketing</b>
<ul style="list-style-type: none"><li>● <b>NFTs Pallet Maintenance:</b> Regular updates and security checks to ensure the seamless integration and functioning of the NFTs pallet.</li></ul>
<ul style="list-style-type: none"><li>● <b>Landing Page Optimization:</b> Continual enhancement of the landing page for improved user engagement and experience.</li></ul>
<ul style="list-style-type: none"><li>● <b>Gallery Updates:</b> Regular updates to the gallery feature to enhance user interaction and display capabilities.</li></ul>
<ul style="list-style-type: none"><li>● <b>Mint Functionality:</b> Ensuring the minting process remains efficient and secure, with periodic updates as needed</li></ul>
<ul style="list-style-type: none"><li>● <b>Profile Management:</b> Ongoing support for user profile functionalities, including updates for improved user experience.</li></ul>
<ul style="list-style-type: none"><li>● <b>Transfer and Asset Teleportation:</b> Regular maintenance to ensure secure and efficient asset transfer and teleportation functionalities.</li></ul>
<ul style="list-style-type: none"><li>● <b>Identity Management:</b> Continual updates and improvements to identity management features for enhanced security and user verification.</li></ul>
<ul style="list-style-type: none"><li>● <b>Cart Management:</b> Ongoing optimizations to the cart management system for a smoother user experience.</li></ul>
<ul style="list-style-type: none"><li>● <b>XCM Auto-Teleport:</b> Regular maintenance and updates to ensure the reliability and efficiency of cross-chain messaging and asset teleportation.</li></ul>
<ul style="list-style-type: none"><li>● <b>Drops:</b> Regular updates and enhancements to the Drops feature to ensure its smooth operation, engaging user experience, and alignment with the latest market trends and user expectations.</li></ul>

- Organic Marketing campaigns: Drops, Minting challenges, Giveaways, Raffles, Community Growth, Community Support, Ambassador initiatives, Event organization

## 2.5. Timelines

Milestones	Hours per Developer	Total Hours (10 Developers)	Status	Allocated Budget (USD)
1. Integration of the NFTs pallet	410.8 hours	4108 hours	Completed	\$87,500
2. Landing page components integration	246.5 hours	2465 hours	Completed	\$52,500
3. Gallery	164.3 hours	1643 hours	Completed	\$35,000
4. Mint	164.3 hours	1643 hours	Completed	\$35,000
5. Profile	164.3 hours	1643 hours	Completed	\$35,000
6. Transfer, Asset Teleportation, Identity management, Cart Management	246.5 hours	2465 hours	Completed	\$52,500
7. XCM Auto-Teleport	246.5 hours	2465 hours	Completed	\$52,500
8. Maintenance Phase / 6 months	141 hours	1408 hours	6 months	\$180,000

## 2.6. Budgets

Tasks	Hourly Rate	Costs	Notes
-------	-------------	-------	-------

Milestone 1: Integration of the NFTs pallet	\$21.3	\$87,500.00 (\$21.3x4108h)	Completed
Milestone 2: Landing page components integration	\$21.3	\$52,500.00 (\$21.3x2465h)	Completed
Milestone 3: Gallery	\$21.3	\$35,000.00 (\$21.3x1643h)	Completed
Milestone 4: Mint	\$21.3	\$35,000.00 (\$21.3x1643h)	Completed
Milestone 5: Profile	\$21.3	\$35,000.00 (\$21.3x1643h)	Completed
Milestone 6: Transfer, Asset Teleportation...	\$21.3	\$52,500.00 (\$21.3x2465h)	Completed
Milestone 7: XCM Auto-Teleport	\$21.3	\$52,500.00 (\$21.3x2465h)	Completed
Milestone 8: Maintenance Phase / 6 months	\$21.3	\$180,000 (\$21.3 x 1408 x 6)	Pending
<b>TOTAL COSTS</b>		<b>\$530,000.00</b>	

### 3.Proposal report

#### 3.1. Quantitative Metrics:

To evaluate the technical progress and achievements of the KodaDot NFT Marketplace, we've applied various quantitative metrics. These metrics enable us to objectively assess the efficiency, functionality, and stability of our platform. The core quantitative measurements include:

- Integration of the NFTs Pallet: Successful integration into the runtime without any regressions.
- Core Component Delivery: All essential features were developed within the defined scope and budget.
- Architectural Adherence: We've strictly followed the prescribed architecture, specifications, and upheld high software quality standards.
- Feature Parity: Achieved full feature equivalence with the original Kusama NFT environment.
- Testing Results: Comprehensive functionality, security, and load testing scenarios were executed with positive results.
- Bug Minimization: Significant efforts were made to reduce the number of bugs and defects in the production components.
- Performance Benchmarks: Transactions per second and other key performance indicators matched or even exceeded our initial projections.
- Documentation Timeliness: All documentation, support resources, and educational materials were delivered on schedule.

### **3.2. Qualitative Metrics:**

While quantitative metrics provide a clear picture of our technical performance, qualitative feedback offers invaluable insights into the user and developer experience. Some of the qualitative metrics we've considered include:

- User Satisfaction: This was gauged based on surveys, interviews, and interactions within community forums. The feedback has been overwhelmingly positive, emphasizing the platform's user-friendliness and robustness.
- Sentiment Analysis: Monitoring social channels, commentary, and reactions has shown a growing interest and enthusiasm for our platform.
- Focus Group Evaluations: Key ecosystem participants provided constructive feedback, which was instrumental in refining our approach.

- **Independent Audits:** Audits and code reviews by certification bodies verified the quality and security of our codebase.
- **Security Assessments:** Specialized firms, including a trail of bits, conducted rigorous security evaluations, further ensuring the robustness of our platform.
- **Adoption Rates:** The increasing number of active users among our target segments is a testament to our platform's appeal and functionality.
- **Developer Innovation:** The creativity showcased by developers building on our platform has been both impressive and inspiring.
- **Trust Among Node Operators:** Approval ratings from node operators and validators have consistently been high.
- **Perceptions of Web3 Newcomers:** Even those new to the crypto space and Web3 have found our platform intuitive, further bridging the gap between traditional tech and blockchain.

### **3.3. Communication:**

We will communicate our progress towards the proposal objectives through regular updates and milestone reports. These will detail our achievements, challenges faced, solutions implemented, and plans for subsequent phases. We aim to maintain transparency and active engagement with the Polkadot community and our stakeholders throughout the project.

The impact we aim for with our solutions is multifaceted. We seek to enhance the Polkadot community's NFT experience by facilitating a seamless migration process from Kusama, improving the utility and interoperability of NFTs on the Polkadot Asset Hub, and fostering a robust and vibrant NFT ecosystem. We believe these efforts will contribute significantly to Polkadot's position as a leader in the NFT space and inspire further innovation and growth within the community.

The success of this proposal will be evaluated based on a set of pre-defined quantitative and qualitative metrics, as well as the completion of key milestones.

---

Milestones 1-8 as outlined below have already been completed. Details of the work delivered under each milestone can be verified by visiting the milestone reports linked here or through a tab created in our open-source repository:

- <https://github.com/orgs/kodadot/projects/10>
- [Milestone demos](#)

<b>Milestones</b>	<b>Deliverables</b>	<b>Targets</b>
1. Development of Base Tools for NFT Migration	Successful integration of the NFTs pallet into KodaDot	<a href="#">Milestone 1 report</a>
2. Landing page components integration	Centralized hub featuring Navbar, Search function, Spotlight, Newest List, Latest Sales, User Connection, and Cart	<a href="#">Milestone 2 report</a>
3. Gallery	Integration of the main gallery view showcasing various NFT collections and items	<a href="#">Milestone 3 report</a>
4. Mint	Comprehensive suite of minting tools for various needs	<a href="#">Milestone 4 report</a>
5. Profile	Holistic profile management experience	<a href="#">Milestone 5 report</a>
6. Transfer, Asset Teleportation, Identity management...	Secure asset transfer, on-chain identity setup, cart system	<a href="#">Milestone 6 report</a>
7. XCM Auto-Teleport	Implement Auto Teleport feature for automating fund transfers	<a href="#">Milestone 7 report</a>
8. Maintenance	Maintenance of the protocol, components and Polkadot Asset Hub updates	Milestone 8 report

---

---

## 4. Payment conditions

### 4.1. Requests

The total requested amount for the completion of milestones 1-8 is **\$530 000 USD**. This covers the work already delivered in Milestones 1-7 and work for Milestone 8 which is in progress.

### 4.2. Developments

Milestone reports for milestones 1-7 have already been completed and are linked here:

- [Milestone 1 report](#)
- [Milestone 2 report](#)
- [Milestone 3 report](#)
- [Milestone 4 report](#)
- [Milestone 5 report](#)
- [Milestone 6 report](#)
- [Milestone 7 report](#)

### 4.3. Contingencies

To address potential risks and uncertainties associated with the development and maintenance of the Polkadot Asset Hub, the following contingency measures have been put in place:

- Configurable Development Phases: Implementation of feature flags and configurable development phases to isolate and address issues without affecting the entire system.



- **Phased Deployment and Testing:** Gradual rollout, beginning with non-critical components before full-scale implementation. This includes extensive testing in controlled environments to simulate real-world scenarios.
- **System Monitoring and Alert Mechanisms:** Continuous monitoring of all systems with automated alerts for any anomalies. Rollback procedures are in place to revert to stable states in case of critical failures.
- **Data Redundancy and Backup Strategies:** Implementation of redundant storage solutions and regular backups to ensure data integrity and quick recovery in case of data loss or corruption.
- **Comprehensive Risk Assessment:** Conducting thorough risk assessments to anticipate and prepare for potential failures, including edge cases.
- **Insurance Coverage for Critical Failures:** Securing insurance to cover extreme cases of system failures or significant asset losses.
- **Dedicated Support for Key Operations:** Allocating priority support for crucial operations, especially during the initial stages of the project and major updates.
- **Executive Oversight and Manual Interventions:** Establishing protocols for executive decision-making and manual intervention in high-stakes situations where automated systems are insufficient.
- **Ongoing Refinement of Protocols:** Regular review and enhancement of these contingency measures based on project progression, technological advancements, and stakeholder feedback.

#### **4.4. Submissions**

This proposal represents the formal payment request for milestones 1-8 as outlined in the attached reports.

#### **4.5. Targets**

The targets for Milestones 1-7 have been completed, with details provided in the retrospective reports.

Milestone 8 is a maintenance.

#### **4.6. Accounts**

The Polkadot account address of the proposer is:

**15VmrRmgPhKMfBanjS5ei4dCcVL54GMLCfnVRryynSYzvvyys**

This account has the verified [on-chain identity](#).

#### **4.7. Communications**

The project manager can be contacted at:

[cryptodamsky@protonmail.com](mailto:cryptodamsky@protonmail.com)

The proposer is also available on Matrix under the handle:

**@damsky:matrix.org**

and on Polkadot Direction.

---

### **5. Comments, Qs&As**

Include here any relevant public information, questions along with their respective answers about this proposal that have been covered on any communication channels to date.

Why create a proposal with 7 milestones? - Essentially - this is an infrastructure delivery for Polkadot Asset Hub common good parachain and doesn't make sense for us to propose milestone by milestone as our delivery team consists of 100+ developers working on all of the milestones at the same time.

Also Because each of them is connected to each other and without each other doesn't provide a comprehensive and full-on experience for the user who wants to do everything from one place

---

## **6. Why Polkadot Network?**

We chose to build on Polkadot because it represents the future focus for the ecosystem going forward. With development and marketing efforts consolidating on Polkadot, enabling this NFT migration from Kusama is strategic.

Kusama is being left out of recent messaging due to fragmentation across networks. Proposing migration of the Kusama NFTs to the Polkadot Asset Hub parachain will allow for unified communication and reduced market confusion.

Polkadot's scalability also offers room for exponential ecosystem growth by absorbing Kusama's vibrant creative class. And Substrate's flexibility empowers robust NFT innovations tailored for Polkadot's needs.

By proactively bridging Kusama's existing energy, we believe Polkadot can establish itself as the nexus point for the open metaverse, cementing its central role in the next wave of NFT advancement.

---

## **7. We'd love to hear about how you got to know about the Polkadot on-chain treasury.**

Our team learned about the Polkadot OpenGov through research, discussions, and active participation in the Polkadot community.

