

# Launchpad PRD

## 1. Feature Introduction

### Overview

The Launchpad is a market discovery and chain deployment platform that enables developers to launch blockchain networks on Canopy with minimal technical barriers. It combines template-based chain creation, virtual pool price discovery, and automated liquidity bootstrapping into a seamless experience.

### Problem Statement

Current blockchain deployment requires significant technical expertise, upfront capital for liquidity, and complex coordination between infrastructure providers. This creates high barriers to entry that prevent innovative projects from reaching the market, while users lack effective mechanisms to discover and evaluate new chains before committing resources.

## 2. Principles & Objectives

### Goals

- Reduce Time to Launch: Enable virtual chain deployment in under 10 minutes
- Lower Financial Barriers: Minimize launch costs to the parameterized base fee
- Automate Liquidity: Eliminate manual liquidity pool creation through graduation mechanics
- Enable Fair Discovery: Provide transparent, community-driven price discovery through bonding curves
- Ensure Quality: Filter low-quality projects through market mechanisms before mainnet deployment

### Success Metrics (KPIs)

- Average time from template selection to virtual chain deployment < 10 minutes
- Launch cost reduction of 90% compared to traditional chain deployment
- 80% of graduated chains maintain active trading after 30 days
- Zero failed deployments due to platform issues

### Non-Goals

- Supporting non-Canopy blockchain ecosystems
- Managing post-launch chain operations

- Guaranteeing project success or token value

## Principles

- Fast
- Engaging interface
- Minimal complexity
- Monetizable - all trades are monetized

## 3. Users

### Primary Personas

#### 1. Semi/Non-Technical Entrepreneur (vibecoders/memechains)

- Background: Business owner seeking blockchain integration
- Technical Level: Low to medium
- Needs: Simple deployment, clear documentation, template options
- Pain Points: Complex technical requirements, high costs, unclear processes

#### 2. Blockchain Developer

- Background: Experienced developer with existing codebase
- Technical Level: High
- Needs: GitHub integration, customization options, automated testing
- Pain Points: Infrastructure management, liquidity bootstrapping, marketing

#### 3. Community Supporter

- Background: Crypto enthusiast seeking new opportunities
- Needs: Project discovery, early access, transparent information
- Pain Points: Scam projects, lack of due diligence tools, poor liquidity

## Key User Stories

1. As a non-technical entrepreneur, I want to launch a blockchain for my business in under 10 minutes so that I can focus on building my product rather than infrastructure. I'd like to know if my project has interest in the minimum amount of time.
2. As a blockchain developer, I want to import my existing codebase (utility) and deploy it as a Nested Chain so that I can leverage Canopy's ecosystem as quickly and efficiently as possible.
3. As an end user, I want to find and support various chains that are launching so that I can participate in promising projects early.

## 4. Requirements

### P0 - Must Have

#### Virtual Pool System

- Implement bonding curve with CNPY pairing
- Support mint/burn token mechanics
- Calculate dynamic pricing based on supply
- Handle buy/sell transactions
- Track pool metrics (volume, liquidity, participants)

#### Template System

- Provide launch templates for major protobuf-compatible languages

#### Graduation Mechanism (handled by Graduator. See [Graduator](#))

- Monitor market cap thresholds (\$50,000 default - final parameters TBD)
- Pause trading for minimum amount of time for automatically transfer to AMM pools to occur
- Transfer liquidity from bonding curve to AMM
- Deploy chain to mainnet with validator
- Execute GitHub-based upgrades at specified blocks

#### Project Launch Interface

- Template selection and customization
- GitHub repository connection
  - Capability to connect to Github to pull in project code
  - Ability to select when utility upgrade will occur (by block)
- Launch scheduling with date/time selection
- Ability to enter critical project information
  - Chain/token naming and one liner
  - Website (URL)
  - Social accounts (URL)
    - Social proof linking (Twitter, Telegram, website)
  - Github repository (URL)
  - Whitepaper (URL)
  - One-liner (short text)
  - Description (long text)
  - Image/video upload for branding
- Display of fixed tokenomics (informational)

#### Launchpad Dashboard Interface

- Display active virtual pools

- Show bonding curve progress
- Show price history line chart
- Quick view stats: price, type, launch date, volume, progress
- Filter by template type, launch date, volume, progress
- Real-time price updates
- List of graduated projects (excluded from launch list)
- List of upcoming launches, by soonest

## Project Page

- Critical project information (Always displayed)
  - Chain/token naming and one liner
  - One-liner (short text)
  - Via icons
    - Website (URL)
    - Social accounts
  - Github repository (URL)
  - Creator wallet address or username
  - Launch creation time (hours/days since launch)
- Project Information Tab
  - Description (long text)
  - Video for branding
  - Whitepaper (URL)
  - Show template type, launch date,
- Tradingview-like chart (see pump.fun) with key information like volume
  - Market Cap
  - Percent change (24 hours)
- Top Holders by percentage
- Show simple bonding curve progress
- Easy to use Buy/Sell interface
- Simple position indicator

## P1 - Great to Have

### Enhanced Discovery

- Featured launches
- “Top” Launches based on trending algorithm based on velocity metrics
- Community sentiment analysis
- GitHub activity monitoring

### Launch Analytics

- Pre-launch interest tracking ('likes' system?)
- Conversion funnel analysis
- Post-graduation performance metrics

## P2 - Nice to Have

### Social Features

- Project discussions/comments
- Developer AMA scheduling
- Community polls/voting
- Referral system for launches

### Advanced Trading

- Limit orders on bonding curve
- Auto-buy at launch time
- Portfolio tracking across launches

## P3 - If We Have Time

### Gamification/Etc.

- Leaderboards for supporters
- Badge rewards program
- Referral system

### Notifications

- Receive graduation alerts (email since we already have it?)

### Trading

- \$ value vs \$token value (can be switched)

## 5. Technical Architecture

### System Components

#### Frontend

- Wallet integration (Metamask, Canopy wallet)
- Real-time WebSocket connections
- Responsive design for mobile/desktop

#### Backend Services

- Virtual pool management service
- Template validation service
- Chain deployment orchestrator
- GitHub integration service
- Price feed aggregator

## Smart Contracts

- Bonding curve contract
- Graduation controller
- Fee distribution mechanism
- LP token management

## Integration Requirements

### Cross-Chain Explorer

- Automatic chain listing upon graduation
- Real-time metrics feeding
- Validator information synchronization

### AMM Integration

- Liquidity pool creation API
- Price feed connections
- Trading pair registration

### Wallet Integration

- Chain detection and addition
- Token balance tracking
- Transaction signing

## 6. User Experience Design

### Complete Launchpad Flow

None

#### BUILDER JOURNEY

- |— PREPARATION PHASE
  - |— Browse Template Gallery
  - |— Select Template
  - |— Fork Template to GitHub
  - |— Customize Template
  - |— Test Configuration
- |— LAUNCH SETUP
  - |— Connect Wallet
  - |— Fill Launch Form

- | | | └── Chain Name & Ticker
- | | | └── Description
- | | | └── Upload Logo/Video
- | | | └── Set Launch Date/Time
- | | └── Connect GitHub Repository
- | | └── Add Social Proof
  - | | | └── Website URL
  - | | | └── Whitepaper Link
  - | | | └── Twitter/Telegram
  - | | | └── Team Information
- | | └── Initial Purchase (Optional)
  - | | | └── Enter CNPY Amount
  - | | | └── Calculate Token Received
  - | | | └── Review Bonding Curve
- | └── PAYMENT & DEPLOYMENT
  - | └── Pay Launch Fee (100 CNPY)
  - | └── Pay for Initial Tokens
  - | └── Confirm Transaction
- | └── Launch
  - | └── Virtual Pool Created
- | └── POST-LAUNCH MANAGEMENT
  - | └── Monitor Bonding Curve Progress
  - | └── Track Community Purchases
  - | └── Engage with Supporters
  - | └── Prepare for Graduation

## COMMUNITY/TRADER JOURNEY

- | └── DISCOVERY PHASE
  - | └── Browse Active Launches
  - | └── Filter by Category/Template
  - | └── Sort by Trending/New/Volume
  - | └── Search Specific Projects
- | └── DUE DILIGENCE
  - | └── View Project Details

- | | | └── Read Description
- | | | └── Check Template Type
- | | | └── Review Team Info
- | | | └── Examine GitHub Code
- | | └── Analyze Bonding Curve
  - | | | └── Current Price
  - | | | └── Market Cap
  - | | | └── Liquidity Depth
  - | | | └── Graduation Progress
- | | └── Check Social Proof
  - | | | └── Website Quality
  - | | | └── Community Size
  - | | | └── Developer Activity
- | └── TRADING PHASE
  - | | └── Connect Wallet
  - | | └── Enter CNPY Amount
  - | | └── View Token Output
  - | | └── Check Price Impact
  - | | └── Execute Buy/Sell
- | └── GRADUATION PARTICIPATION
  - | | └── Monitor Progress to Threshold
  - | | └── Receive Tokens
  - | | └── Receive Graduation Alert
  - | | └── Automatic LP Token Receipt
  - | | └── Continue Trading on AMM
- BONDING CURVE MECHANICS
  - | └── INITIAL STATE
    - | | └── Starting Price: X CNPY per Token
    - | | └── Virtual Pool: 0 CNPY / Y Tokens
    - | | └── Market Cap: \$Z
  - | └── PRICE DISCOVERY PHASE
    - | | └── Each Buy

```
    |   |   |   Adds CNPY to Pool
    |   |   |   Mints New Tokens
    |   |   |   Increases Price
    |   |   |   Updates Market Cap
    |   |   |   Each Sell
    |   |   |       Burns Tokens
    |   |   |       Removes CNPY
    |   |   |       Decreases Price
    |   |   |       Updates Market Cap
    |
    |   |   APPROACHING GRADUATION
    |   |       Market Cap > $40,000
    |   |           Display Warning: "Approaching Graduation"
    |   |       Market Cap > $45,000
    |   |           Highlight Progress Bar
    |   |       Community Momentum Building
    |
    |   |   GRADUATION TRIGGER ($50,000)
    |   |       Lock Virtual Pool
    |   |       Snapshot Final State
    |   |       Initiate Chain Deployment
    |   |       Create AMM Pool
    |   |       Migrate All Liquidity
```

## GRADUATION PROCESS

```
|   AUTOMATIC TRIGGERS
|       Market Cap Reaches $50,000
|           Graduation Sequence Starts
|
|   CHAIN DEPLOYMENT (0-5 min)
|       Deploy Template Chain
|       Initialize Validator
|       Create Genesis Block
|       Start Network
|
|   LIQUIDITY MIGRATION (5-10 min)
```

- |   └ Virtual Pool Locks
- |   └ No More Trades Allowed
- |   └ Calculate Final Positions
- |   └ Mint Tokens
- |   └ Create CNPY/Token AMM Pool
- |   └ Transfer All Liquidity
- |   └ Issue LP Tokens
- |
- |   └ GITHUB INTEGRATION (Block X)
- |   └ Connect Dev Repository
- |   └ Schedule Upgrade
- |   └ Auto-Upgrade Chain
- |   └ Activate Custom Code
- |
- |   └ FULLY OPERATIONAL
- |   └ Chain Live on Canopy
- |   └ Trading on AMM
- |   └ Validators Can Join
- |   └ Custom Utility Active
- |   └ Project Autonomous

## ERROR HANDLING & EDGE CASES

- |   └ FAILED TO REACH THRESHOLD
  - |   └ Project Remains on Bonding Curve
  - |   └ Trading Continues Indefinitely
  - |   └ Can Still Graduate Later
  - |   └ Delisting Refunds (?)
- |
- |   └ GITHUB CONNECTION ISSUES
  - |   └ Chain Deploys with Template
  - |   └ Manual Upgrade Required Later
  - |   └ Dev Contacted for Fix
  - |   └ Chain Remains Functional
- |
- |   └ INSUFFICIENT LIQUIDITY
  - |   └ Graduation Paused

```
|   └─ Requires Manual Review
|   └─ May Adjust Threshold
|   └─ Community Notified
|
└─ TECHNICAL FAILURES
    └─ Automatic Retry Logic
    └─ Fallback Deployment
    └─ Manual Intervention
    └─ User Funds Protected
```

## Launch Flow

1. Login / Connect wallet
2. Select Launch
3. Select template
4. Connect GitHub (optional)
5. Add branding/social proof/project information
6. Set launch date/time: schedule or immediate
7. Select upgrade time
8. Pay fees and initial purchase
9. Monitor bonding curve
10. \*If criteria are met\* Automatic graduation
11. Chain deployment notification via email

## Discovery Flow

- Browse active launches
- Filter/sort options
- View project details
- Check bonding curve status
- Execute buy/sell
- Track portfolio
- Receive graduation alerts (email?)

## Delisting Flow

- Project falls below certain market cap (parameterized)
- Database lookup to holders
- Distribute CNPY pro rata according to holders

## 7. Metrics and Analytics

### Success Metrics

- Launch Volume: Number of chains launched per week
- Graduation Rate: Percentage reaching market cap threshold
- Time to Graduation: Average duration from launch to mainnet
- User Retention: Percentage of launchers who launch multiple chains
- Trading Activity: Daily active traders on virtual pools

### Quality Metrics

- Project Survival Rate: Chains active after 30/60/90 days
- Community Engagement: Average participants per launch
- Template Usage: Distribution across template types
- Error Rate: Failed launches due to system issues

### Economic Metrics

- Total Value Locked: CNPY in virtual pools
- Fee Revenue: Platform fees collected
- Liquidity Depth: Average liquidity at graduation
- Price Discovery Efficiency: Correlation between virtual and post-graduation prices

## 8. Open Questions / Next Steps

### Pending Decisions

- Optimal graduation threshold (currently \$50,000)
- Fee structure (1% buy/sell vs 1% sell only)
- Number of templates at launch
- Support for non-CNPY pairs
- Governance token allocation for launchers

### Considered but Deferred

- Cross-chain launches: Supporting deployment to non-Canopy chains
- Private/presale rounds: Allowing early access before public launch
- Refund mechanism: Enabling refunds if graduation fails
- Multi-token launches: Supporting multiple tokens per chain
- NFT launchpad: Specialized support for NFT projects
- Custom tokenomics: Ability to customize chain tokenomics

## Next Steps

1. Design UI
2. Finalize bonding curve parameters
3. Complete template library development
4. Design and test graduation triggers
5. Implement monitoring and alerting systems
6. Develop launch success playbook for users
7. Canopy Builder documentation
8. Launchpad docs