Data-Driven Trading and Investment Course

Welcome to a comprehensive journey into data-driven trading. This course bridges the gap between market intuition and systematic analysis.

Discover how to harness data for more confident, consistent trading and investment decisions across various markets.

CO **by CYPRIAN ONDERI**

Welcome & Course Goals

Master Data-Driven Approach

Learn to make trading decisions based on verifiable data rather than emotions.

Develop Systematic Strategies

Build reproducible trading systems that can be tested and improved.

Implement Risk Management

Protect your capital with proper position sizing and risk controls.

Create Effective Trade Logging

Track and analyse your performance to continuously improve.

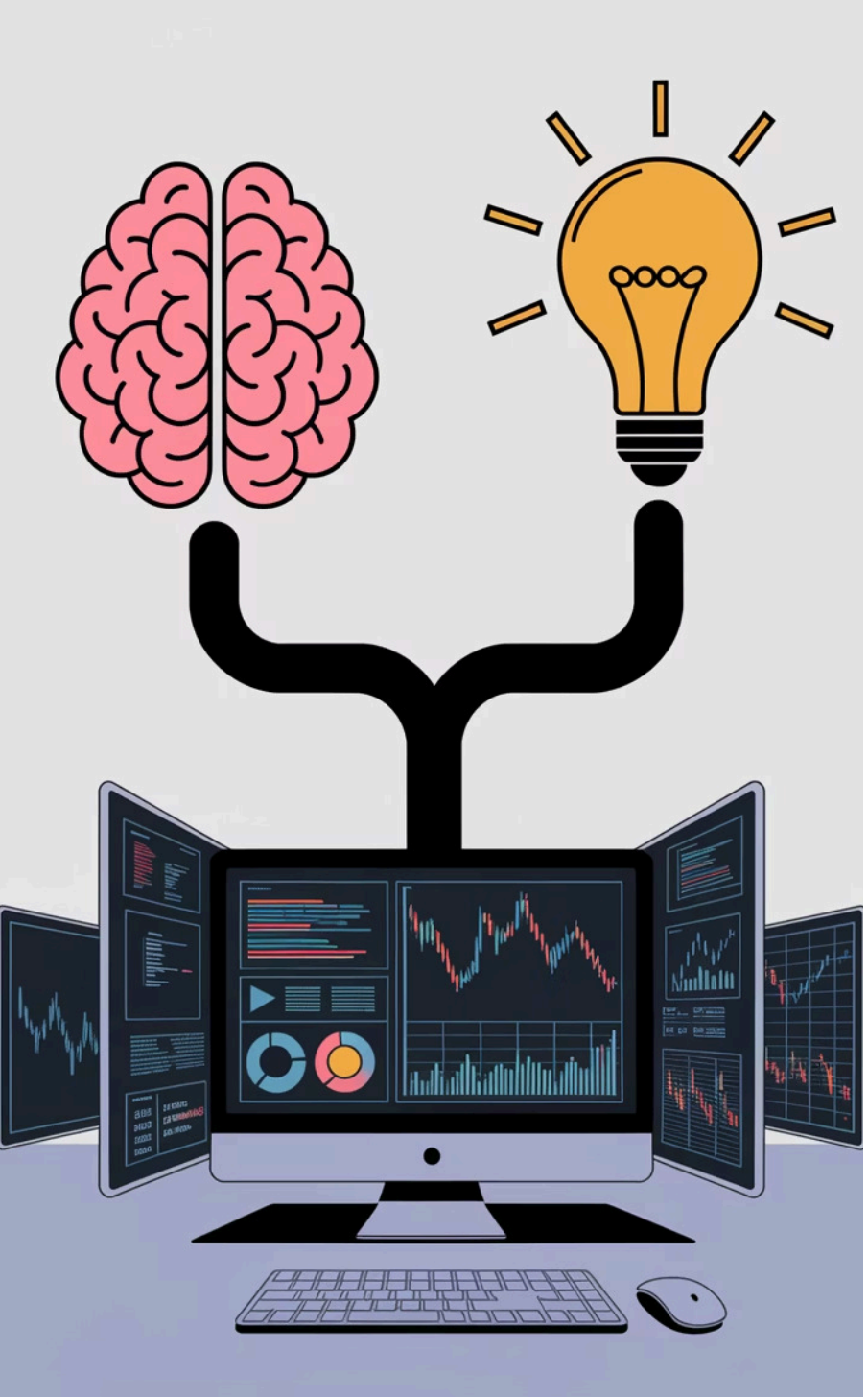
Why Data-Driven Trading?

Emotion-Based Trading

- Decisions based on feelings
- Inconsistent results
- Difficulty identifying issues
- Prone to psychological biases

Data-Driven Trading

- Decisions based on evidence
- Reproducible processes
- Clear performance metrics
- Reduced emotional interference



The Shift: From Intuition to Information

Intuition

Relying on gut feelings and market "sense"

Analysis

Using technical and fundamental data points

System

Building repeatable trading processes

Automation

Implementing rule-based execution

Who This Course is For

Beginner Traders

Start your trading journey with solid, evidence-based foundations rather than costly trial and error.

Struggling Traders

Transform inconsistent results into reliable performance through systematic approaches.

Technical Enthusiasts

Leverage your analytical skills to create powerful trading strategies and systems.

Investors Seeking Edge

Enhance your investment decisions with data-driven insights and methodologies.

Tools You'll Need

Charting Platform

TradingView, MT4/MT5, or similar for technical analysis

Spreadsheet Software

Excel or Google Sheets for tracking and analysis

Trading Journal

Digital or physical system for recording trades

Position Size Calculator

Tool for determining appropriate trade sizes

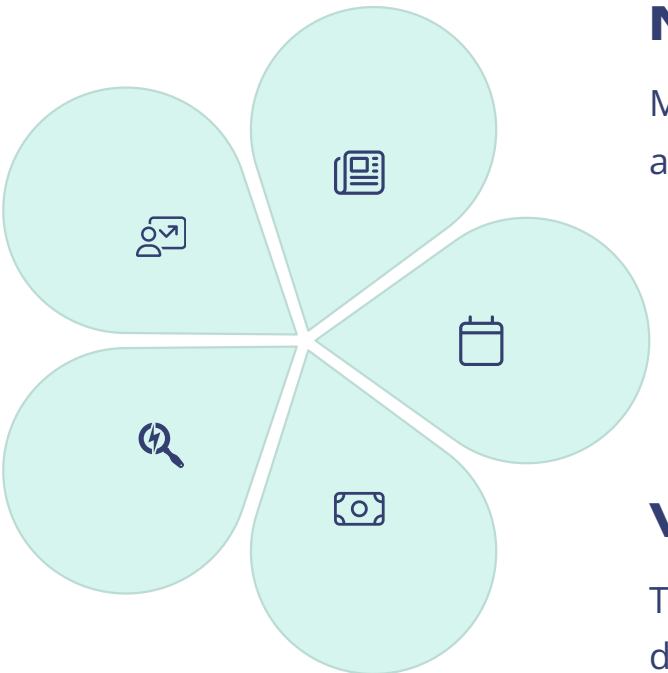
Data Sources: Where Insight Begins

Price Data

Historical and real-time market prices

Sentiment Indicators

Market positioning and trader sentiment



News

Market-moving events and announcements

Economic Calendar

Scheduled economic data releases

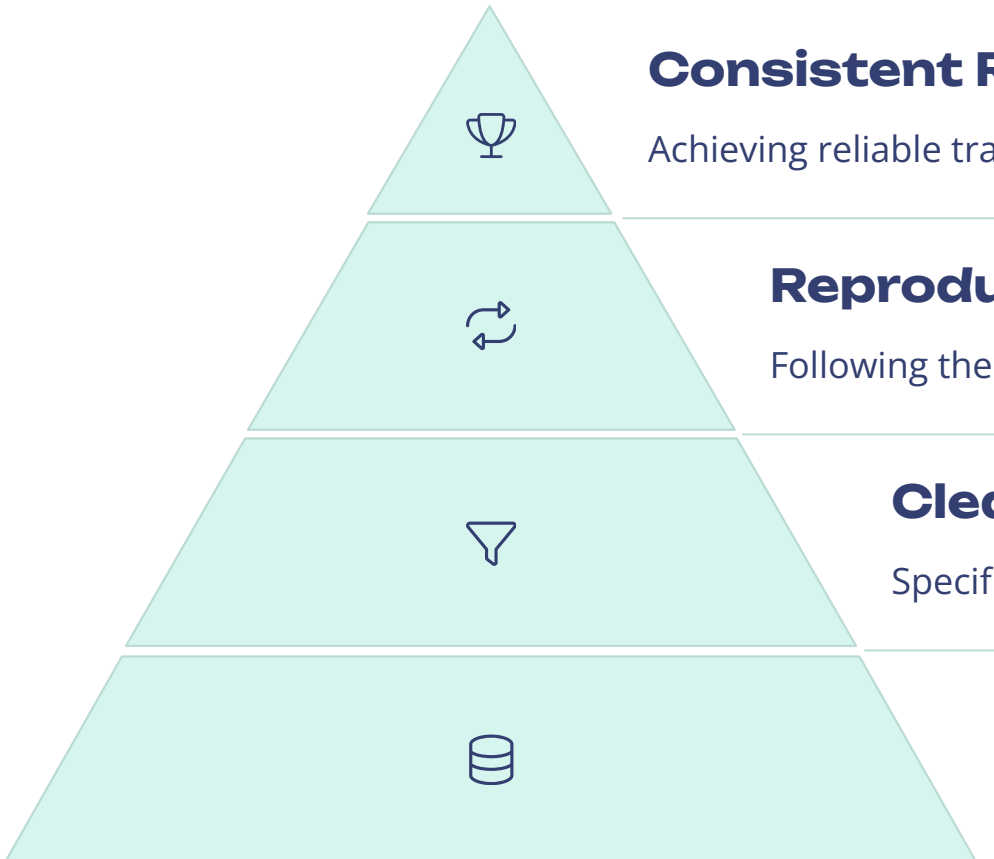
Volume & Order Flow

Transaction volume and market depth

Understanding Markets: Forex & Gold

Market	Characteristics	Trading Hours	Volatility
Forex	Decentralised, high liquidity	24/5 trading	Varies by pair
Gold	Safe-haven asset, inflation hedge	Nearly 24/5	Moderate to high
Correlations	USD often inverse to gold	Overlap opportunities	Crisis amplification

The Power of Systematic Thinking



Consistent Results

Achieving reliable trading performance

Reproducible Process

Following the same steps every time

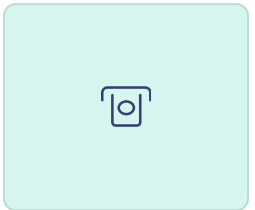
Clear Rules

Specific conditions for trading actions

Evidence Base

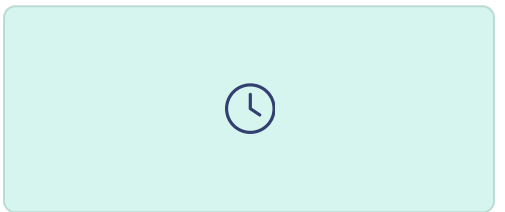
Decisions founded on historical data

Defining Your Trading Goals



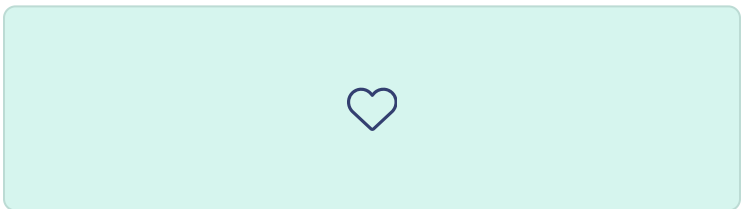
Financial Objectives

Specific return targets and income goals



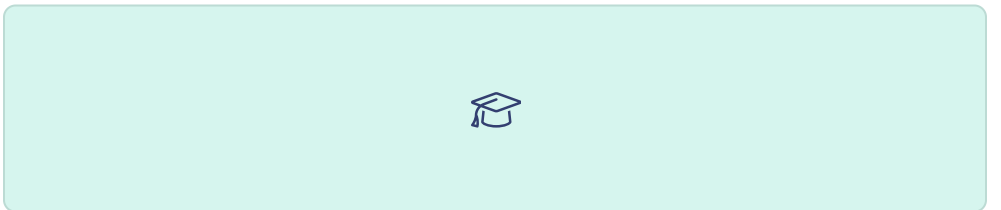
Time Commitment

Hours per day/week available for trading



Risk Tolerance

Comfort level with drawdowns and volatility



Knowledge Level

Current expertise and learning objectives

Trading vs. Investing: What's the Difference?

Trading

- Shorter timeframes
- More frequent transactions
- Technical analysis focus
- Seeks market inefficiencies
- Active management style

Investing

- Longer timeframes
- Fewer transactions
- Fundamental analysis focus
- Seeks value appreciation
- More passive approach

Timeframes & Styles

Day Trading

- Positions held intraday only
- Uses 1-min to 1-hour charts
- Requires active screen time
- Higher frequency of trades

Swing Trading

- Positions held for days to weeks
- Uses 4-hour to daily charts
- Part-time compatible
- Moderate trade frequency

Position Trading

- Positions held for weeks to months
- Uses daily to monthly charts
- Lower time commitment
- Fewer trade opportunities

Building Your Personal Trading Mission

Define Your Purpose

Clarify why you're trading and what you hope to achieve beyond financial returns.

Set Clear Objectives

Establish specific, measurable goals with realistic timeframes for achievement.

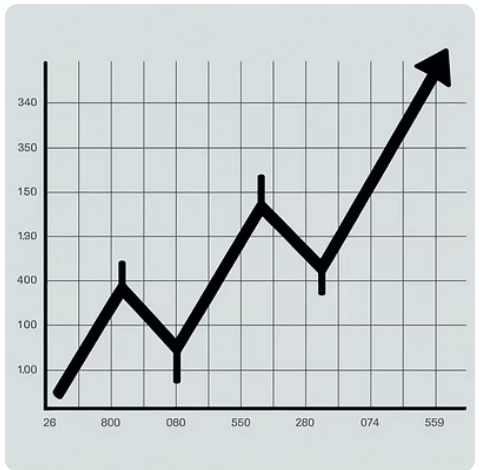
Outline Your Approach

Specify the markets, timeframes, and methods that align with your goals.

Create Accountability

Develop tracking systems and review processes to monitor your adherence.

What Success Looks Like



Aligning Strategy with Objectives

Trading Goal	Suitable Strategy Type	Time Commitment
Consistent income	High probability, lower reward setups	Regular daily hours
Account growth	Trend following with pyramiding	Regular monitoring
Passive income	Swing or position trading	Part-time, flexible
Skill development	Mixed approach with journaling	Dedicated learning time

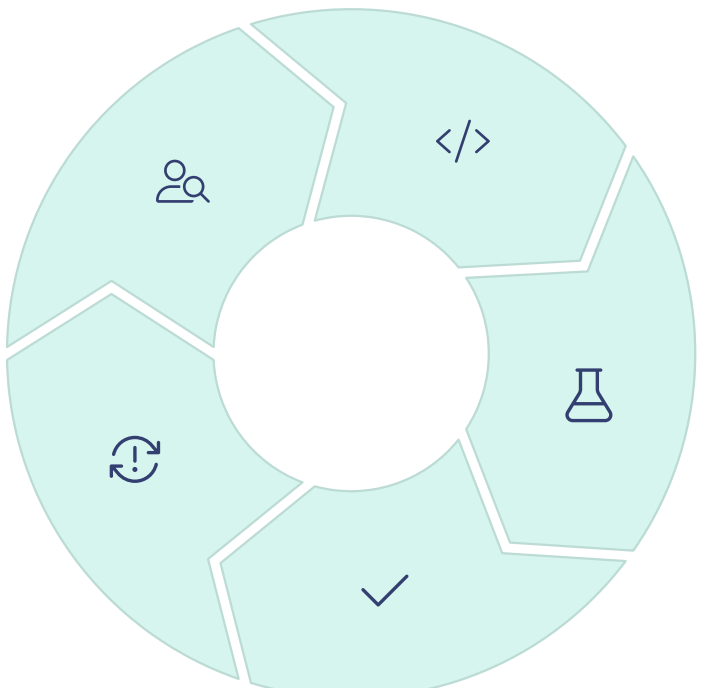
The Data-Driven Workflow

Research

Gather historical data and identify patterns

Review

Analyze performance and refine approach



Develop

Create and define strategy rules

Test

Backtest and optimize parameters

Deploy

Implement strategy in live markets

What Makes a Good Strategy?

Clear Edge

Identifiable advantage backed by statistical evidence, not just anecdotes or feelings.

Definable Rules

Specific conditions for entry, exit, and position management that can be consistently applied.

Robustness

Works across different market conditions and remains effective with parameter variations.

Risk Control

Built-in mechanisms to limit losses and manage drawdowns during adverse conditions.

Price Action & Market Structure

Trend Identification

Recognizing higher highs/lows (uptrend) or lower highs/lows (downtrend).

Support & Resistance

Key price levels where buying or selling pressure has historically emerged.

Swing Points

Significant highs and lows that mark potential turning points.

Chart Patterns

Recognizable formations that suggest continuation or reversal.

Indicators That Matter

Moving Averages (EMA/SMA)

Identify trends and potential support/resistance levels. EMA responds faster to price changes than SMA.

Relative Strength Index (RSI)

Momentum oscillator measuring speed and change of price movements, identifying overbought/oversold conditions.

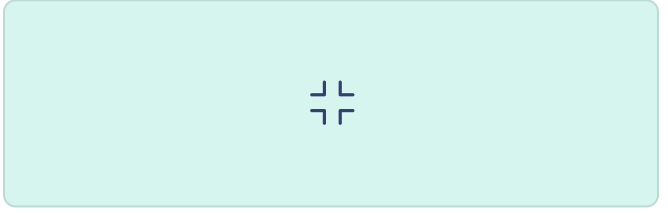
MACD

Trend-following momentum indicator showing relationship between two moving averages of price.

Multi-Timeframe Analysis (MTA)

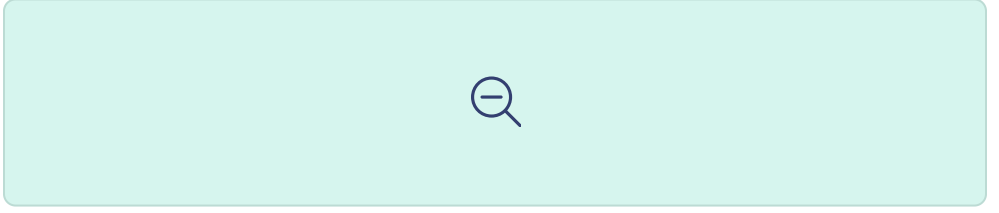
Higher Timeframe

Establish overall trend direction and key levels



Middle Timeframe

Identify trading opportunities within the trend



Lower Timeframe

Fine-tune entry and exit points for better precision

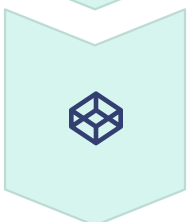
Building a Strategy From Scratch

Identify Market Inefficiency

Find a pattern or behavior you can potentially exploit.

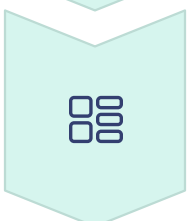
Formulate Hypothesis

Create a testable statement about market behavior.



Define Trading Rules

Create specific entry, exit, and management criteria.



Develop Performance Metrics

Decide how you'll measure strategy success.

Test and Validate

Use historical data to verify your approach.

Backtesting: What, Why, and How

What is Backtesting?

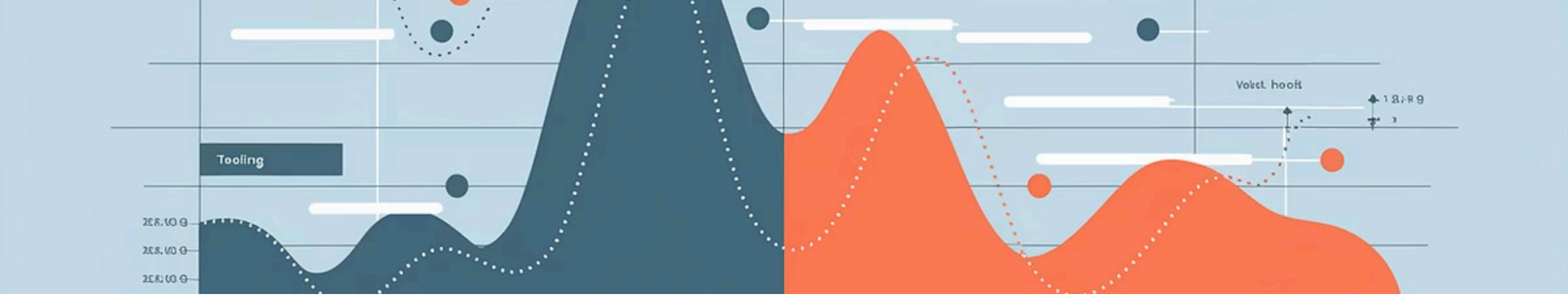
The process of testing a trading strategy against historical data to verify its viability before risking real capital.

Why Backtest?

- Verify strategy performance
- Understand drawdowns
- Identify strategy weaknesses
- Build confidence in the approach

How to Backtest

1. Define clear strategy rules
2. Gather quality historical data
3. Use software or manual testing
4. Record all results systematically



Walk-Forward Testing

Divide Data into Segments

Split historical data into consecutive periods for testing and validation.

Optimize on In-Sample Data

Develop and refine strategy on the first segment only.

Test on Out-of-Sample Data

Verify performance on unseen data without further adjustments.

Roll Forward and Repeat

Move testing window forward to validate across different market conditions.

Avoiding Curve-Fitting

Signs of Curve-Fitting

- Perfect backtest results
- Overly complex rules
- Highly specific parameters
- Poor out-of-sample performance
- Strategy only works in specific periods

Prevention Methods

- Keep strategies simple
- Use out-of-sample testing
- Apply statistical validation
- Test across various market conditions
- Limit parameter optimization

Strategy Metrics to Track

1.75

Profit Factor

Ratio of gross profits to gross losses. Target 1.5+

15%

Max Drawdown

Largest peak-to-trough decline. Keep under 20%

58%

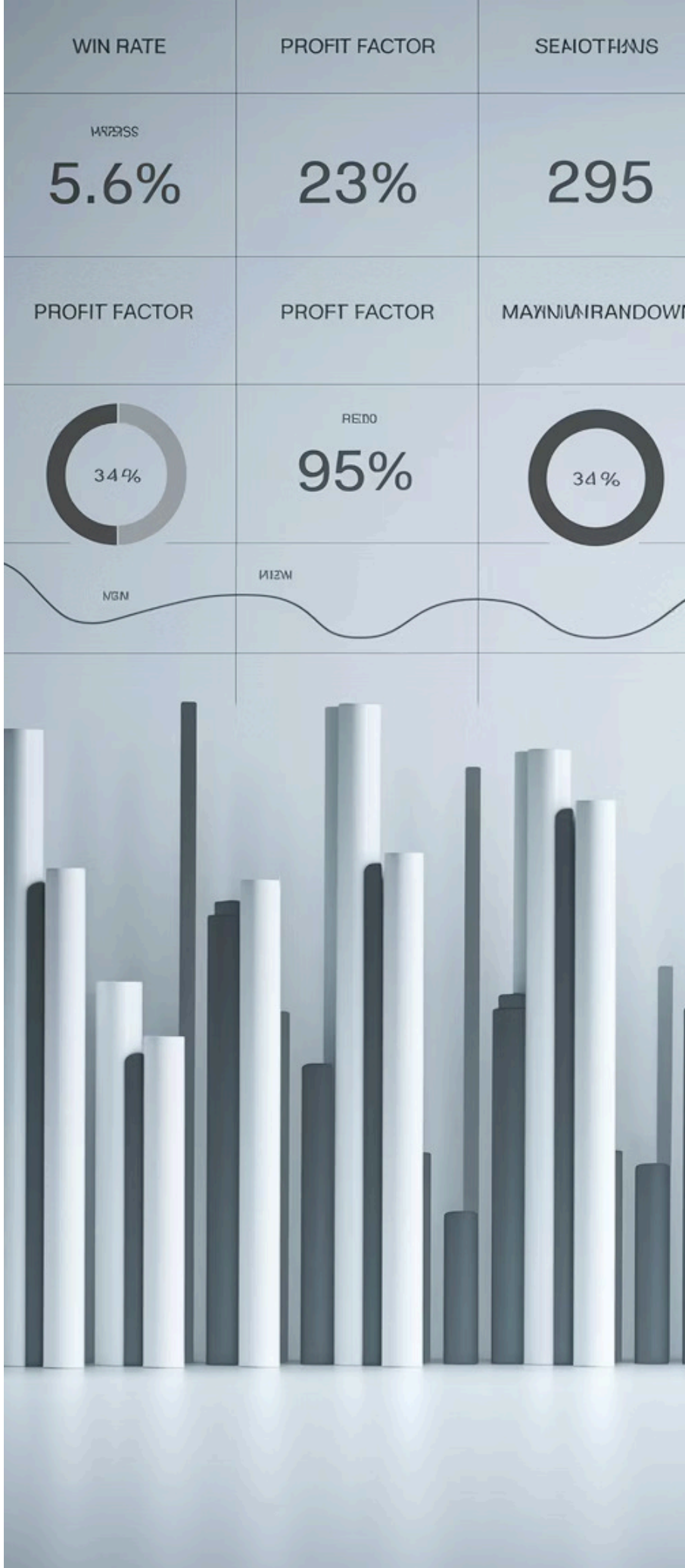
Win Rate

Percentage of winning trades versus total trades

2.1

Risk-Reward Ratio

Average profit on winners vs. average loss on losers



Optimization Without Overfitting

Focus on Key Parameters

Optimize only the most impactful 2-3 variables.

Use Broad Parameter Ranges

Test wide intervals rather than specific values.

Apply Monte Carlo Simulation

Test strategy robustness through randomized scenarios.

Seek Balanced Metrics

Don't optimize for profit alone; consider drawdown and consistency.

Case Study: Data Strategy in Action

Strategy Hypothesis

EUR/USD tends to revert to mean after volatile moves outside Bollinger Bands.

Rule Definition

Enter when price closes outside 2.5 SD band and RSI shows extreme reading.

Backtest Results

58% win rate, 1.8 profit factor, 12% max drawdown over 5 years.

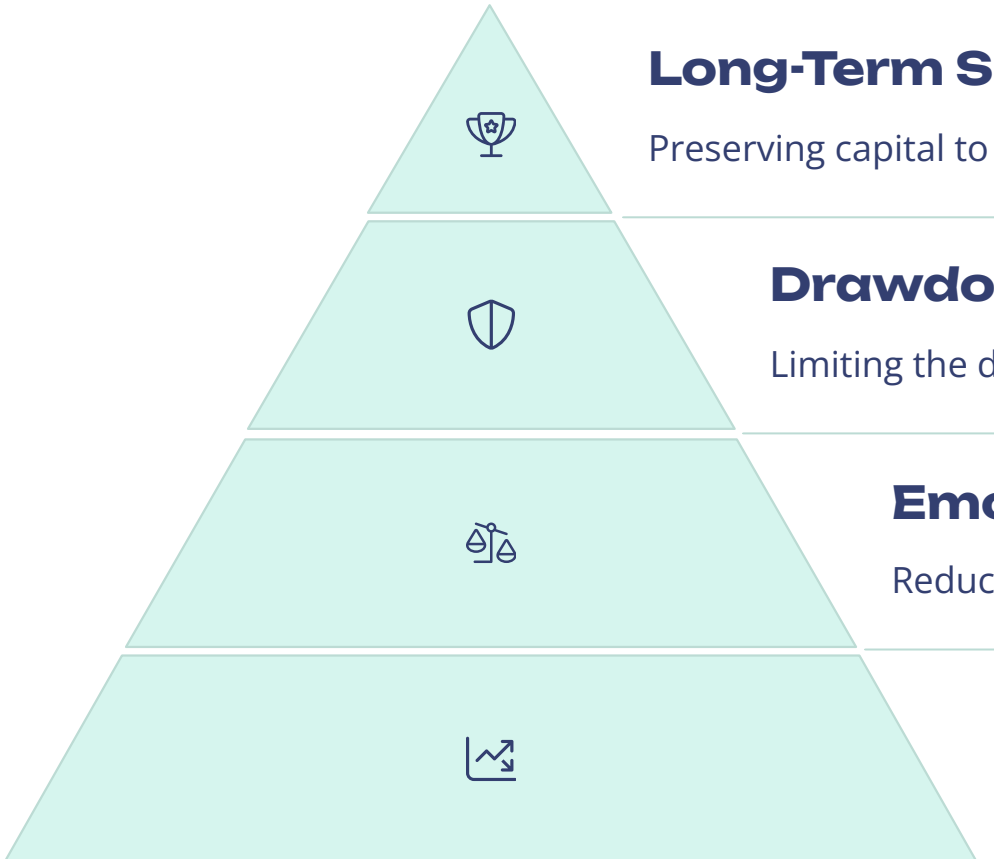
Optimization

Adjusted RSI thresholds and tested various exit techniques.

Live Performance

Strategy delivered 11% annual return with 14% drawdown, close to backtested results.

Why Risk Management is Everything



Long-Term Survival

Preserving capital to trade another day

Drawdown Protection

Limiting the depth of losing periods

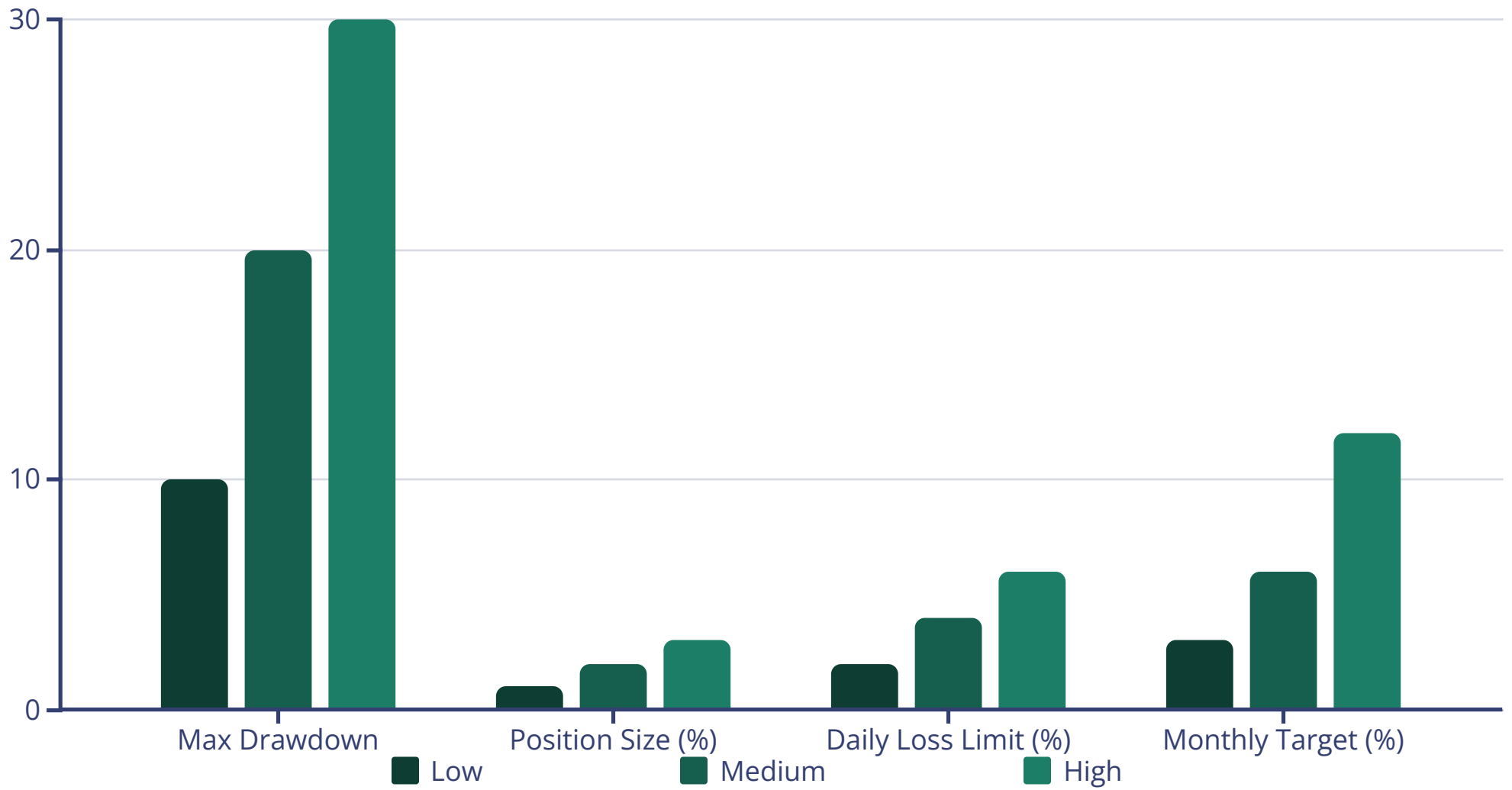
Emotional Control

Reducing stress during inevitable losses

Performance Consistency

Smoothing the equity curve over time

Defining Your Risk Tolerance



Position Sizing Techniques

Fixed Percentage

Risk a set percentage of account equity on each trade (e.g., 1-2%).

- Simple to calculate
- Adjusts naturally as account grows/shrinks

Volatility-Based

Adjust position size based on market volatility (e.g., ATR).

- Smaller positions in volatile markets
- Larger positions in calm periods

Kelly Criterion

Mathematical formula for optimal position sizing based on edge.

- Considers win rate and risk-reward ratio
- Often reduced to "Half Kelly" for safety

Setting Stop Loss & Take Profit

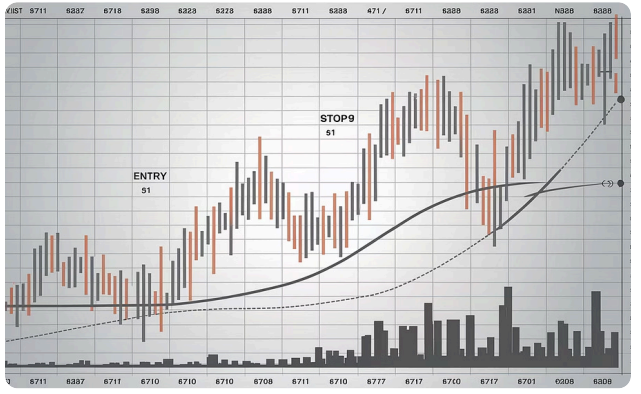
Stop Loss Types

- Fixed Price: Set at specific level
- Percentage-Based: Set distance from entry
- Volatility-Based: Uses ATR multiplier
- Technical Level: Uses support/resistance
- Time-Based: Exits after specific duration

Take Profit Approaches

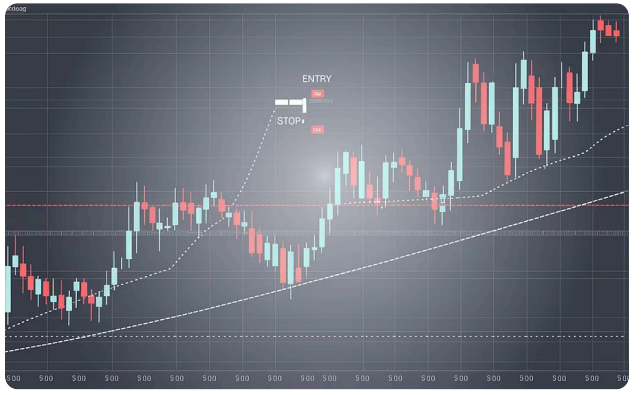
- Fixed R-Multiple: Set risk-reward ratio
- Technical Level: Key resistance/support
- Trailing Stop: Locks in profit as trade moves
- Partial Exits: Scale out at multiple targets
- Indicator-Based: Exits on signal

Risk-to-Reward Explained



1:1 Risk-Reward

Requires very high win rate (>65%) to be profitable long-term. Generally not recommended.



1:2 Risk-Reward

A balanced approach requiring 40% win rate. Good for most trading styles.

1:3+ Risk-Reward

Allows for lower win rates (<33%). Ideal for trend following strategies.

Managing Losing Streaks

Identify

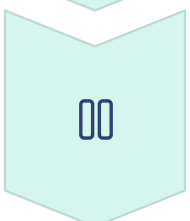
Recognize when you're in a drawdown period.

Analyze

Determine if losses are random or systematic.

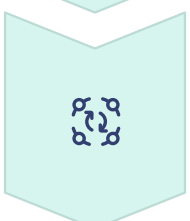
Reduce

Scale down position size to preserve capital.



Reset

Take a short break if needed to regain perspective.



Resume

Return to normal trading with renewed discipline.

Managing Winning Streaks

Maintain Discipline

Stick to your trading plan despite feeling invincible.

Document Success

Record what's working well to replicate in future.

Bank Profits

Consider withdrawing some gains to secure your success.

Watch for Overconfidence

Be alert to risk-seeking behavior that may develop.

Strategy Types: Trend, Range, Breakout

Strategy Type	Market Condition	Key Indicators	Win Rate / RRR
Trend Following	Directional markets (30%)	Moving averages, ADX	~40% / 1:2.5
Range Trading	Sideways markets (70%)	Oscillators, Bollinger Bands	~60% / 1:1.5
Breakout	Consolidation to trend transition	Volume, support/resistance	~35% / 1:3

Day Trading Strategy Example (Forex)

Market Selection

EUR/USD during London-NY overlap (14:00-17:00 GMT) for maximum liquidity.

Entry Rules

Enter after pullback to 20 EMA when price action confirms trend continuation.

Exit Strategy

Take profit at previous swing high/low or 1:2 RR ratio. Stop loss below recent structure.

Position Sizing

1% risk per trade, adjusted for recent volatility using ATR.

Swing Trading Strategy Example (Gold)

Strategy Fundamentals

- Timeframe: 4H and Daily
- Typical duration: 3-7 days
- Risk per trade: 1.5%
- Target win rate: 45%
- Risk-reward: 1:2.5

Entry Criteria

- Daily trend identified (higher highs/lows)
- Pullback to 21 EMA on 4H chart
- Bullish engulfing pattern at support
- RSI divergence confirming reversal

Risk Management

- Stop loss below recent swing low
- Partial take profit at 1:1
- Move stop to breakeven after 1:1
- Trail remainder with 2-day low

Mean Reversion Strategy Example

Identify Extreme Deviation

Look for price extended beyond 2.5 standard deviations from mean (Bollinger Bands).

Confirm Reversion Signal

Wait for RSI to show oversold (<30) or overbought (>70) conditions.

Enter on First Reversal Sign

Take position when price action confirms with reversal candlestick pattern.

Exit at Mean or Opposite Band

Take profit when price reaches the middle band (mean) or opposite band.

Momentum Strategy Example

Momentum Identification

- ADX reading above 25 (strong trend)
- Price making consecutive directional moves
- Volume increasing in trend direction
- MACD histogram expanding

Entry Methodology

- Enter on breakout of key level
- Use limit orders on shallow pullbacks
- Add to position as momentum continues
- Avoid chasing after extended moves

Risk Management

- Wider stops to accommodate volatility
- Trail stop behind swing points
- Take partial profits at resistance
- Exit on momentum divergence

Trade Entry Techniques

Market Order Entry

Immediate execution at current price. Best for fast-moving breakouts when speed matters more than precision.

Limit Order Entry

Enter only at specified price or better. Ideal for pullbacks to support/resistance levels in established trends.

Stop Order Entry

Enter only when price breaks above/below trigger level. Perfect for breakout strategies requiring confirmation.

Scaled Entry

Multiple smaller entries at different levels. Reduces timing pressure and improves average entry price.

Exit Rules & Scaling Out

Fixed Target Exit

Predetermined price level based on R-multiple or technical level

Partial Exit

Taking profit on portion of position while letting remainder run

Stop Loss Exit

Exit when trade moves against you beyond acceptable threshold

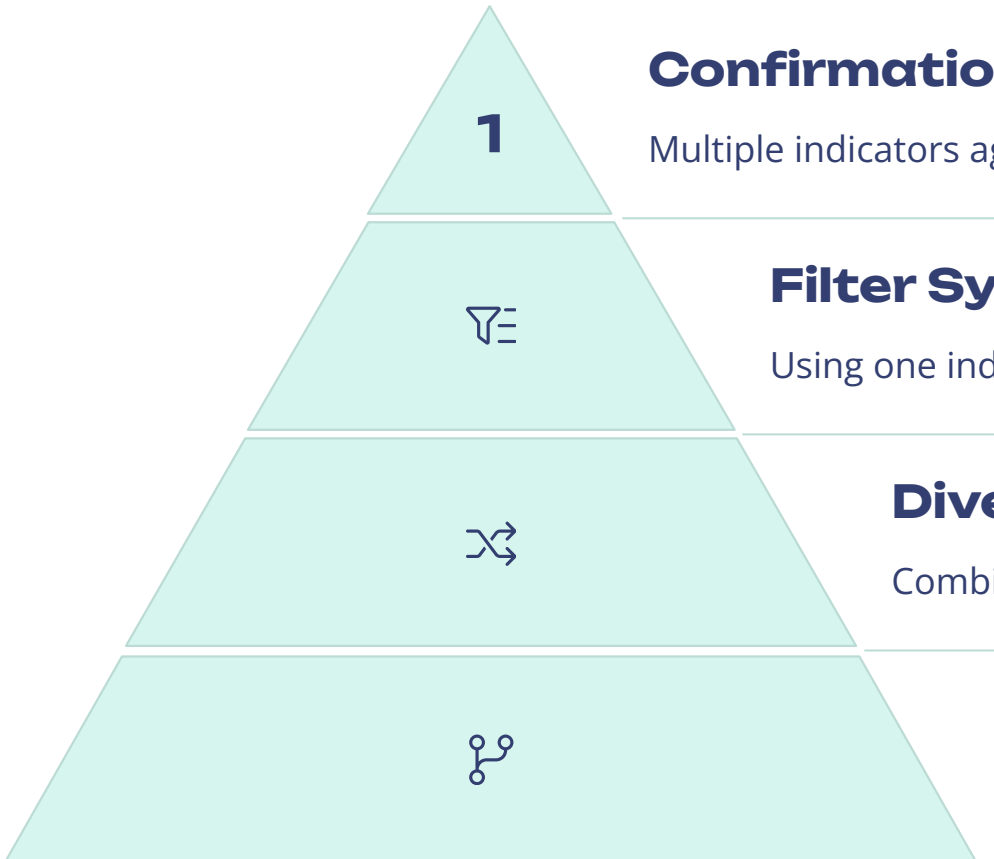
Trailing Stop Exit

Dynamic stop that moves with profitable trade to lock gains

Indicator-Based Exit

Exit when technical indicator signals trend exhaustion

Combining Indicators for Edge



Confirmation Signals

Multiple indicators agreeing on direction

Filter System

Using one indicator to qualify another's signals

Diverse Indicator Types

Combining trend, momentum, and volatility measures

Logical Rule Structure

Clear methodology for interpreting multiple inputs

Algorithmic & Rule-Based Systems

Benefits of Automation

- Eliminates emotional biases
- Ensures consistent execution
- Allows simultaneous strategy monitoring
- Provides detailed performance metrics
- Operates 24/7 without fatigue

Implementation Levels

- Fully Manual: Human executes all steps
- Alert System: Algo signals, human decides
- Semi-Auto: Human confirms algo entries
- Fully Automated: Complete hands-off

Required Skills

- Clear strategy definition
- Basic programming knowledge
- System monitoring capability
- Understanding of API connections
- Risk management failsafes

Custom Indicators (Pine Script, MQL)

Concept Development

Identify the market inefficiency or pattern you want to detect.

Pseudocode Creation

Outline the logic and conditions before actual coding.

Programming Implementation

Write the indicator in Pine Script (TradingView) or MQL (MetaTrader).

Testing & Refinement

Test on historical data and optimize parameters.

Integration

Incorporate into your trading platform and strategy.

Automation Basics (for Coders)

1

Select Development Environment

Choose appropriate language and platform for your needs

Connect to Market Data

Establish reliable API connections for price feeds

Create Decision Engine

Implement your strategy logic with clear rules

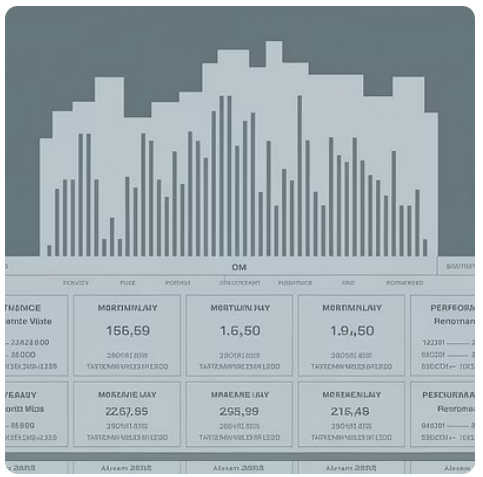
Add Risk Management

Build robust safeguards against technical failures

Develop Monitoring Tools

Create dashboards to track performance metrics

Practical Demo Placeholder



Why You Must Track Every Trade

Performance Measurement

Track your actual results against expectations and goals.

Pattern Identification

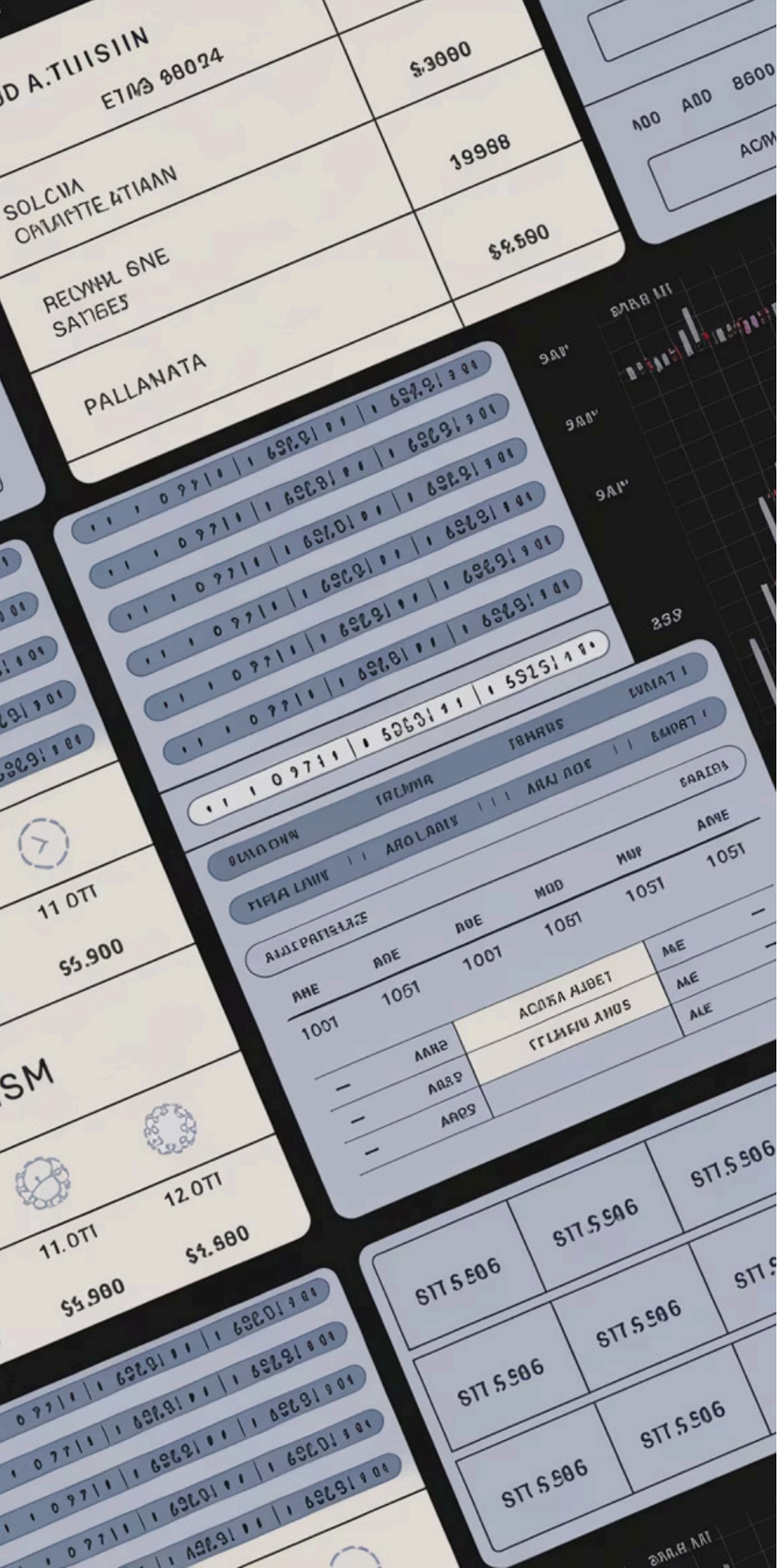
Discover hidden strengths and weaknesses in your trading.

Strategy Validation

Verify if your approach works as expected in live markets.

Psychological Insights

Recognize emotional patterns that affect decision making.



Anatomy of a Great Trade Journal

Trade Mechanics

- Entry/exit prices and times
- Position size and instrument
- Stop loss and take profit levels
- R-multiple and P&L result

Technical Analysis

- Strategy and setup type
- Chart screenshots before/after
- Key indicators and readings
- Market conditions context

Personal Reflection

- Emotional state during trade
- Decision quality assessment
- Mistakes and lessons learned
- Ideas for improvement

Pre-Trade Checklist

1

Strategy Alignment

Does the setup match my proven strategy criteria?

2

Risk Assessment

Is the position size appropriate for my account?

3

Technical Confirmation

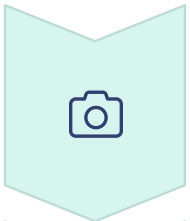
Do multiple indicators support this trade?

4

Market Environment

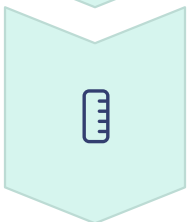
Is the market condition suitable for this strategy?

Post-Trade Review Process



Document Results

Record all trade data and save chart screenshots.



Compare to Plan

Assess how closely you followed your trading rules.

3

Rate Execution

Score your entry timing, management, and exit decisions.

Extract Lessons

Identify key takeaways and improvement opportunities.

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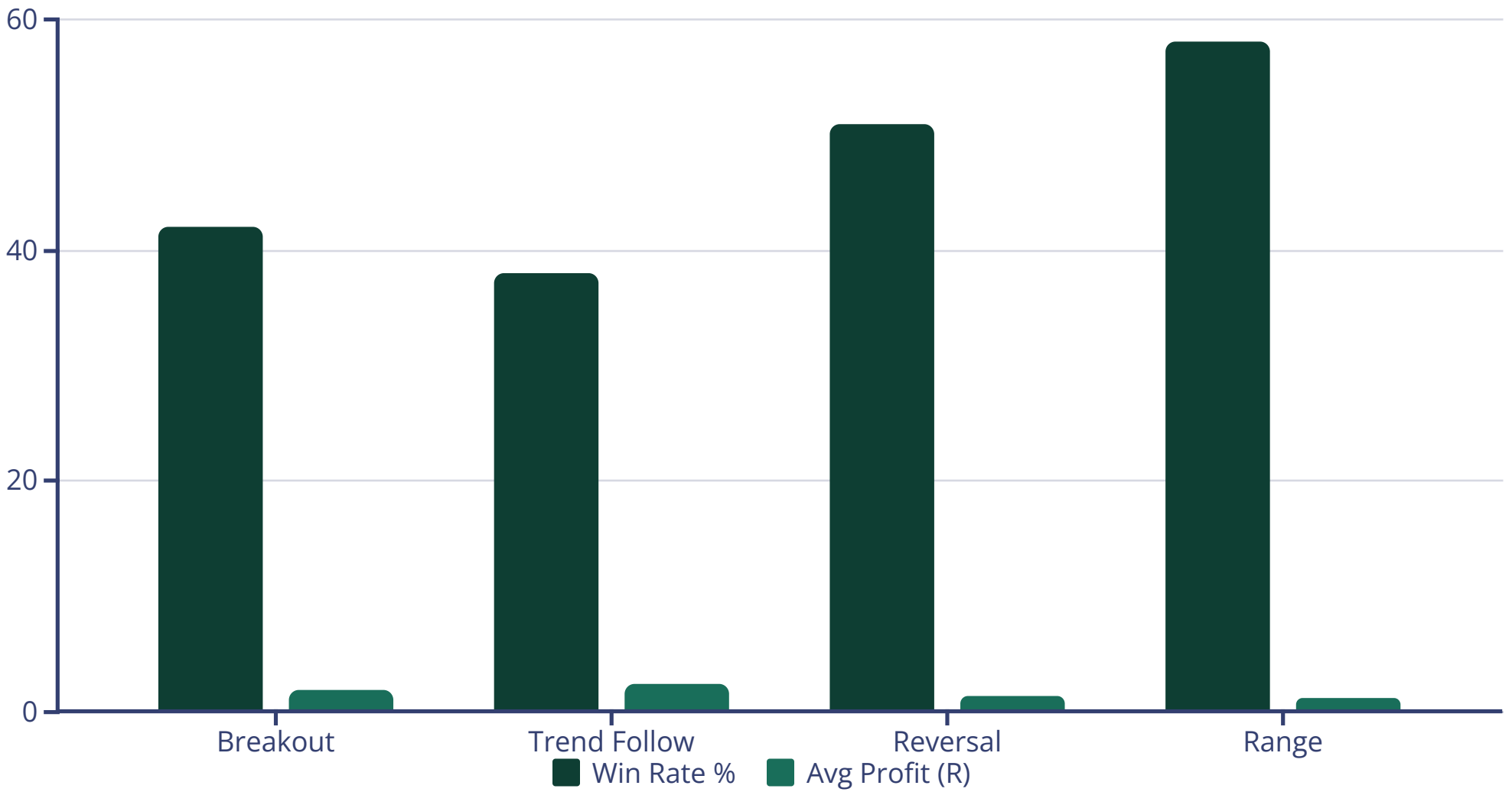
Update Strategy

Refine your approach based on new insights.

Trade Tagging & Filtering



Analyzing Patterns in Performance

Time-Based Analysis

Examine performance by day of week, time of day, or market session.

Strategy Comparison

Compare results across different setup types and instruments.

Position Sizing Impact

Evaluate how sizing decisions affect overall returns.

Equity Curve Analysis

Identify periods of drawdown and strong performance.

Growth Through Self-Review

1

Honest Assessment

Objectively evaluate your decisions without emotional bias.

Pattern Recognition

Identify recurring behaviors in both winning and losing trades.

Skill Development

Target specific areas for focused improvement and practice.

Performance Tracking

Document your progress over time to validate growth.

Recap: The Data-Driven Edge

Sustainable Success

Consistent long-term performance over market cycles

Continuous Improvement

Evidence-based refinement of trading approaches

Risk Management

Disciplined capital preservation during drawdowns

Strategic Execution

Systematic implementation of tested trading ideas

Statistical Foundation

Decisions based on quantifiable evidence not emotions

Building Your Trading Plan

Trading Goals

Specific, measurable objectives with realistic timeframes

Market & Instruments

Selected markets and specific instruments you'll trade

Strategy Details

Precise entry, exit, and management rules for each setup

Risk Parameters

Position sizing, max drawdown, and risk per trade limits

Checklist: From Idea to Execution

Strategy Development

Create clear hypothesis and trading rules based on observable market behavior.

Historical Validation

Backtest the strategy across different market conditions to verify edge.

Paper Trading

Practice execution without real capital to refine process and build confidence.

Small Live Testing

Deploy with minimal capital to experience real market psychology.

Full Implementation

Scale to appropriate position sizing with complete tracking and management.

Common Pitfalls to Avoid

Curve-Fitting

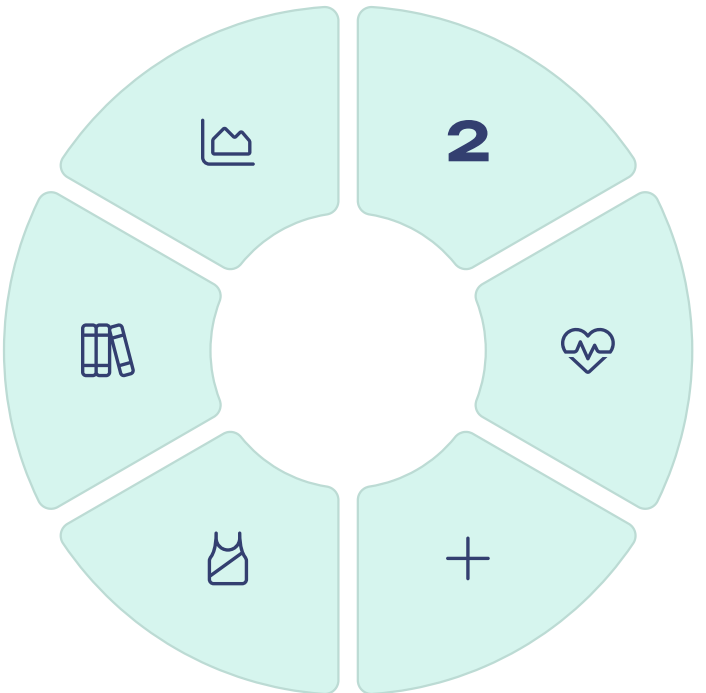
Optimizing strategies to perfectly match historical data

Poor Documentation

Failing to track trades and learn from outcomes

System Hopping

Abandoning strategies before proper validation period



Overtrading

Taking too many trades outside your proven strategy

Emotional Decisions

Letting fear or greed override your trading system

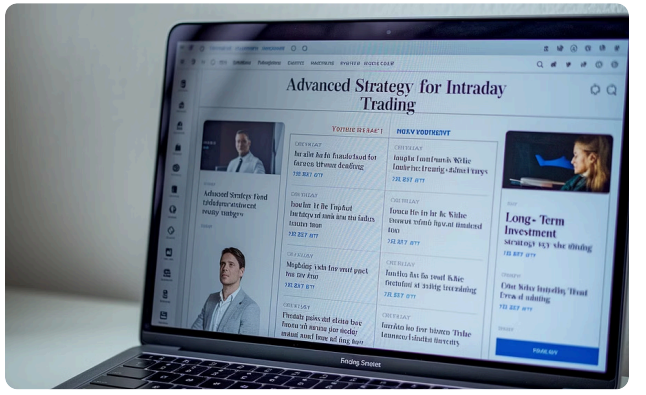
Position Sizing Errors

Taking oversized risks during drawdowns or winning streaks

Continuous Learning Resources

Books & Publications

Technical analysis classics, strategy guides, and market psychology texts.



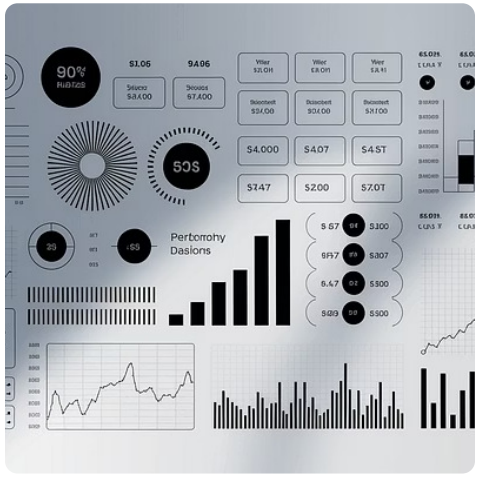
Online Communities

Forums, Discord groups, and trading networks for idea sharing and feedback.

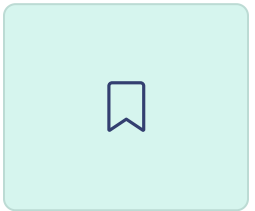
Courses & Webinars

Structured learning from established traders with proven track records.

Where to Practice (Demo Accounts & Tools)



Next Steps: Going Live

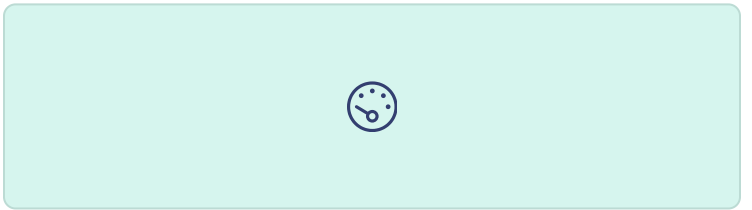


Finalize Trading Plan

Document your complete strategy and risk parameters

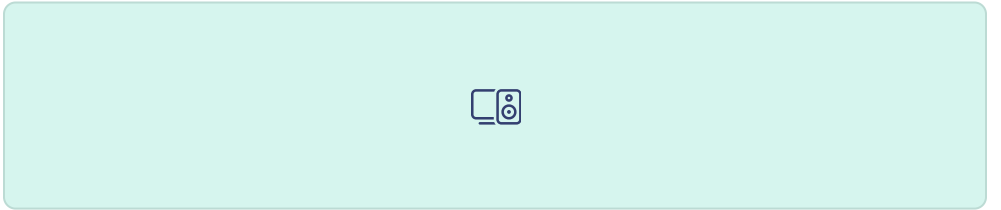
Set Up Capital Structure

Allocate appropriate trading funds with reserves



Start Small

Begin with minimal position sizes to build confidence



Review & Adapt

Regularly assess performance and refine approach