



The CPD Certification Service

# CDP CERTIFICATION



**CERTIFIED BITCOIN SPECIALIST**  
**Certification content**

# CERTIFIED BITCOIN SPECIALIST

## Introduction



From the origins of money and the genesis of **Bitcoin** to the **cryptographic principles** that underpin its security and the **halving mechanism** that governs its programmed scarcity, this path offers a rigorous and **comprehensive exploration** of the most transformative monetary asset of our time. Participants will develop a deep understanding of how **Bitcoin** works, what

gives it its intrinsic value, and how **Game Theory** applies to its incentive structure, before moving into the practical domain of **self-custody** mastering wallets, **private** and **public keys**, and seed phrases to achieve **full sovereignty** over their digital assets. The program then broadens its scope to address the environmental debate surrounding **Bitcoin mining**, drawing on landmark studies from **MIT** and **Cambridge** to provide a balanced, data-driven perspective, and culminates in an in-depth analysis of **Bitcoin's evolution** from decentralized payment instrument to **strategic reserve asset**, tracing the trajectory of **institutional adoption**, from corporate balance sheets to sovereign wealth strategies, that is fundamentally redefining the **global financial system**.

1. Historical aspects
2. Bitcoin and its principles
3. Halving, Bitcoin's monetary policy
4. Self-Custody and Security
5. Bitcoin, from payment toll to Strategic Asset
6. Bitcoin and Environmental Impact

**Overall duration: 5h 41'**

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## Historical Aspects

### Objectives

To fully understand the current context of **cryptocurrencies**, it is essential to review their history and significant events. At the end of the module, participants will be able to evaluate the historical evolution of **cryptocurrencies**, with a particular focus on the genesis of **Bitcoin** and **Ethereum**. Key events such as the **ICO** bubble and the **trends** that have characterized the market in recent years will be explored in depth, outlining the dynamics that have led to their spread and **development**. The module also offers an initial overview **of the institutional adoption of cryptocurrencies**, illustrating how major financial and government institutions have begun to interact with this new **asset class**.

### Contents

- The history of money, from barter to blockchain
- The Birth of Bitcoin
- The birth of Ethereum
- The ICO bubble
- Megatrends
- The Institutional Adoption
- Route Crypto Talk\_The history of money, from bartering to blockchain
- Route Crypto Talk\_Historical aspects

**Duration: 50'**

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## Bitcoin and its principles

### Objectives

In order to understand the mechanisms underlying **Blockchain** and **Cryptocurrencies**, it is essential to devote one of the first Modules to an in-depth analysis of **Bitcoin**, the first **Cryptocurrency** ever, which gave rise to the entire ecosystem. The module aims to illustrate the **functioning** of **Bitcoin** in a simple and understandable way, based on the key concepts presented in the previous modules, as well as to address some aspects related to its intrinsic value, **security**, and **transparency**, which over the years has transformed from a problem to a support in the fight against **money laundering**. Particular attention is paid to the application of **Game Theory to Bitcoin**, with a presentation by **Federico Rivi**.

### Contents

- How does Bitcoin work?
- What gives Bitcoin its value?
- Bitcoin and money laundering
- What makes Bitcoin secure?
- Bitcoin as a financial instrument
- In-depth analysis\_Game theory in Bitcoin
- Route Crypto Talk\_Bitcoin and its principles

**Duration: 83'**

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## Halving, Bitcoin's monetary policy

### Objectives

This module is dedicated **to Halving**, one of the most relevant and distinctive mechanisms of **Bitcoin 's monetary policy**. Starting from **the concept** of Halving itself and **how it works**, we analyze the concrete implications that this cyclical event has on the entire ecosystem. In particular, it explores the concept of **Security Budget** and **the impact** that Halving has on both the activity of **Miners** and **the price** trend **of Bitcoin** , two closely interrelated dimensions. The Module concludes with an assessment of **the model's** long-term **sustainability**, exploring possible future **scenarios** and attempting to offer an overview.

### Contents

- The concept of Halving
- The Halving mechanism
- The concept of Security Budget
- Halving and its impact on miners
- Halving and its Impact on the Price of Bitcoin
- Sustainability of the model and scenarios
- Route Crypto Talk\_Halving, Bitcoin's monetary policy

**Duration: 33'**

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## Self Custody and Security

### Objectives

The individual management of **cryptocurrencies**, which essentially involves direct interaction with the **blockchain**, **differs significantly** from the way we are used to managing financial transactions. Beyond the usual methods of **online fraud**, from which the sector is not exempt and on which some recommendations will be provided based on **specific practices**, participants will understand the essential role of **wallets**, their types, and the concepts of **seed phrases**, **public keys**, and **private keys**, with a particular emphasis on the fundamental distinction from the more familiar concept of "passwords."

### Contents

- Introduction to security
- Wallets
- Types of wallets
- Public key, private key, and seed phrase
- Protecting online accounts
- Route Crypto Talk\_Self Custody and Security

**Duration: 29'**

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## Bitcoin, from payment tool to strategic asset

### Objectives

Over the last fifteen years, **Bitcoin** has undergone a transformation that few assets in financial history can boast: from a **decentralized payment instrument** to a **recognized store of value**, to establishing itself as a **strategic asset** in the valuations of states, companies, and institutional investors. This journey, complex, controversial, but unstoppable, reflects a **profound cultural, technological, and economic** evolution. **Bitcoin** is no longer (just) a **cryptocurrency**. It is a **global monetary protocol**, a new infrastructure for the **transfer and storage of value**, and is becoming an open laboratory for experimenting with **decentralized financial instruments**. This module aims to explore this trajectory with an integrated approach, moving from **its original technical and monetary nature** to its growing adoption as a **store of value** and its increasing **institutional adoption**.

### Contents

- The emergence of a new asset class
- Bitcoin as a payment system
- The adoption and institutional custody of Bitcoin
- Bitcoin in an investment portfolio
- Bitcoin as a strategic reserve
- Ways to gain exposure to Bitcoin
- The evolution of the Bitcoin ecosystem
- Route Crypto Talk\_Bitcoin, from payment instrument to strategic asset

**Duration: 62'**

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## Bitcoin and Environmental Impact

### Objectives

The environmental impact of **cryptocurrencies**, and **Bitcoin** in particular, has been the subject of much debate for years, sometimes with specious arguments, but undoubtedly in light of the impressive energy consumption data associated with **mining**. With the support of two important studies by **MIT** in **Boston** and **GAMA for Africa**, as well as a series of data updates by the **Cambridge University**, the module provides participants with an overview of the costs and benefits of **Bitcoin mining**.

### Contents

- MIT\_Climate impact of Bitcoin mining in the US
- GAMA\_Bitcoin and energy in Africa
- Route Crypto Talk\_Cryptocurrencies and environmental impact
- Route Crypto Talk\_Cambridge Digital Mining Industry Report Report
- In-depth analysis\_The direction of Bitcoin mining

**Duration: 53'**