



**ENTERPRISE  
ETHEREUM  
ALLIANCE**

# **Setting the Standard: Blockchain and the Coming Token-powered Economy**

# The Web's Promise

- Free and Open to All
- Privacy and Trust
- Decentralized
- No One Authority/Owner



**TIM BERNERS-LEE**

*“The goal of the Web is to serve humanity. We build it now so that those who come to it later will be able to create things that we cannot ourselves imagine.”*

# Who Would Have Predicted

## THE GOOD



## THE BAD



# Blockchain Addresses Web's Promise



**Decentralization**



**Privacy and  
Trust**



**Opportunity and  
Disruption**

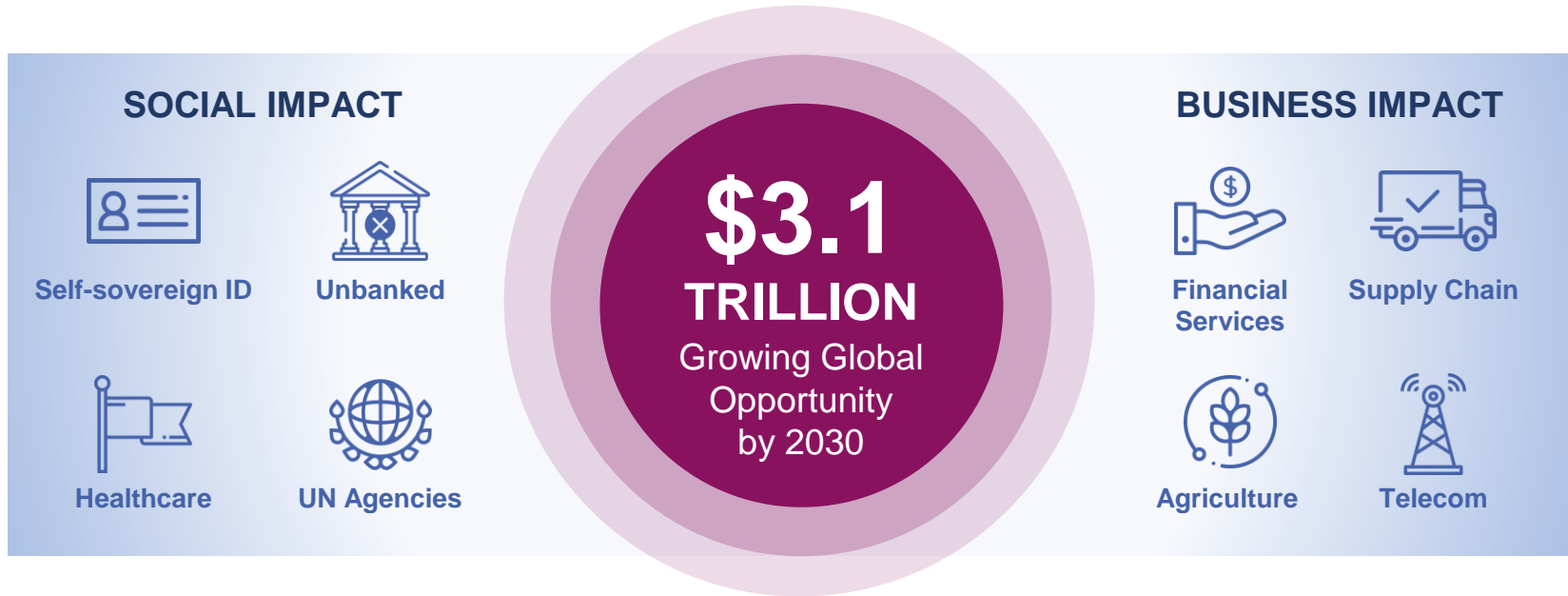


**Free and Open**



**No One Owner**

# Blockchain Serves Both Business and the Greater Good



# Why the Sluggish Adoption?

- Blockchain initially not built for enterprise
- Digital currency
- Evolution to smart contracts
- Challenges
- Incompatible clients
- Negative publicity due to theft of digital assets
- ICO demise
- Legacy infrastructure
- Disruptive

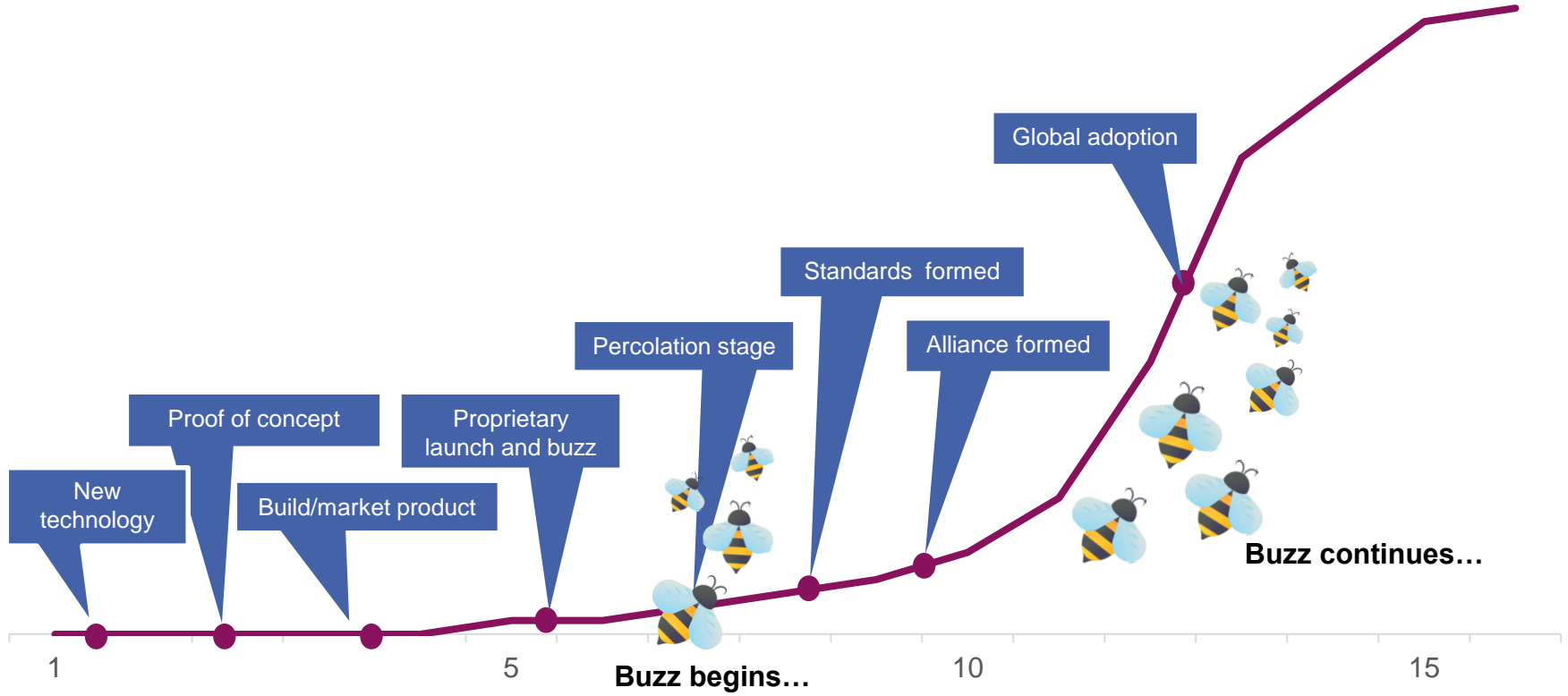


# Blockchain's Keys for Success

- **Governance**
- **Stewardship**
- **Standards**
- **Interoperability**
- **Regulation**

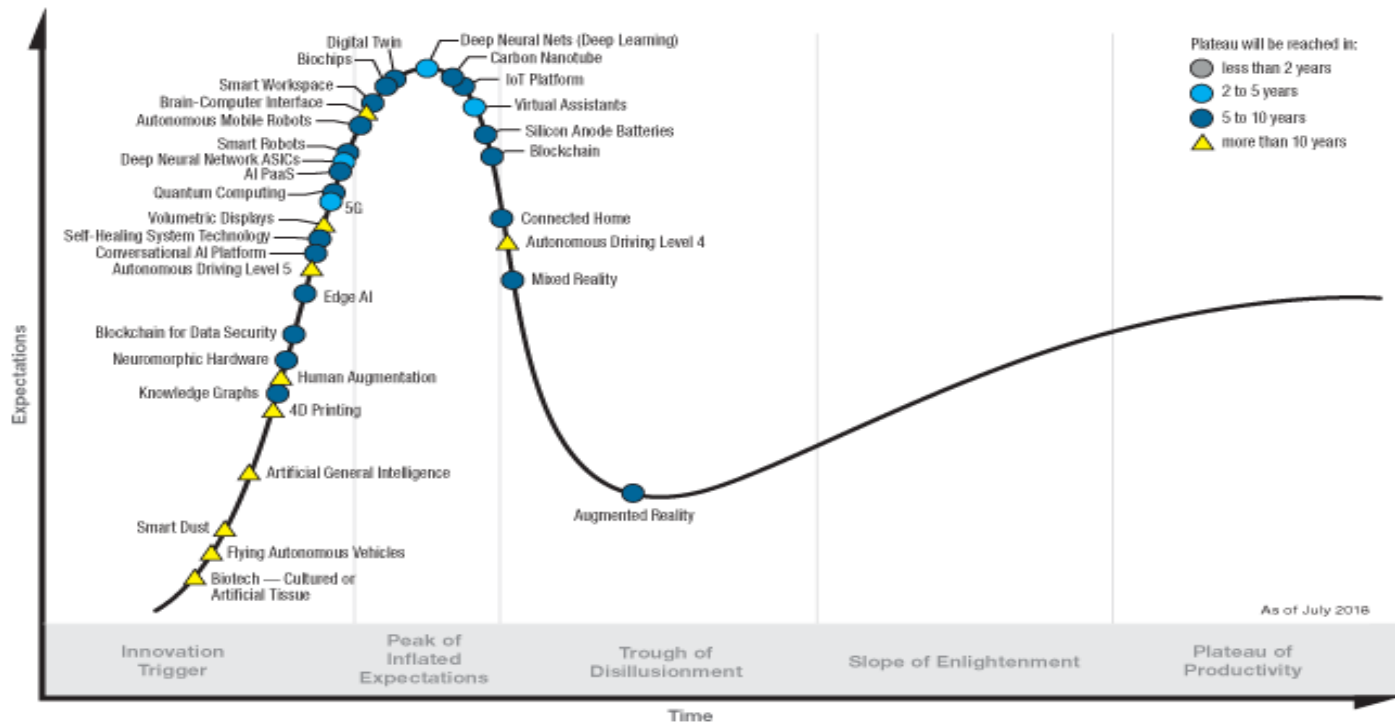


# Typical Timetable to Global Adoption





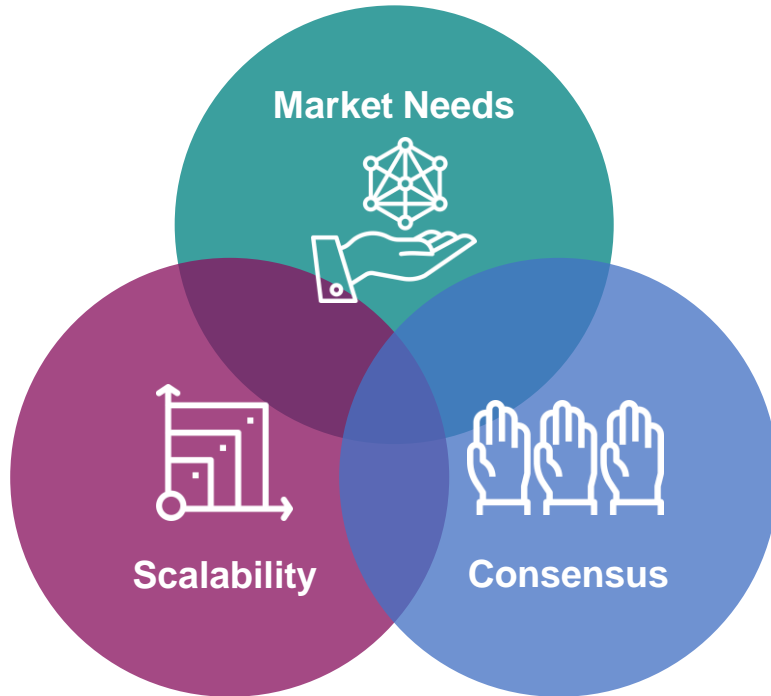
# Hype Cycle for Emerging Technologies, 2018





[gartner.com/SmarterWithGartner](http://gartner.com/SmarterWithGartner)


Source: Gartner (August 2018)  
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# Standards Deliver Interoperability Leading to Mass Adoption




 **Streamline development and implementation**

 **Reduce costs**

 **Open new markets and applications**

 **Encourage market competition**

 **Drive global innovation and advancement**

# How the Standards Process Works

## Analyze

Use cases, technology and specification needs



## Develop

Create solutions for platforms and apps



## Design

Updated specification, PoCs, PoWs



## TestNet



## Certify

Via certification testing via third party



Vendors select certified solutions based on trust

# EEA Serves as an Industry Organization Writing Standards for the Enterprise



**Based on Open  
Standards  
Approach**

**Developers**

**Companies  
Worldwide**

**Verticals  
Represented**

# Let's Talk Tokens

We have a problem...

- No common language among developers, business and regulators
- Too much blockchain influence on the business conversation
- Confusion abounds



# What's a Token

- A digital representation of something residing on a shared distributed ledger that is owned and secured using cryptography to ensure its authenticity and prevent modification or tampering without the owner's consent.
- The representation of the token is based on rules set by the ledger and agreed to by multiple parties.

# The Token Taxonomy Initiative and Purpose:



**Educate** – take a step back and CLEARLY define a token in non-technical and cross-industry terms. Using real-world, everyday analogies so that ANYONE can understand them using properties and behaviors to describe and define them



**Establish** a common set of terms and definitions that can be used by business and technical participants to speak the same language



**Create** – implement blockchain technology neutral token definitions with clear requirements that developers can follow, and standards validate a published “**Token Taxonomy Framework**”



**Define** meta-data using TTF syntax to be able to generate visual representations of the TTF for tooling



It is **NOT**:

- Blockchain specific
- A legal framework
- Complete or comprehensive – requires and encourages collaboration

# Token Taxonomy Initiative

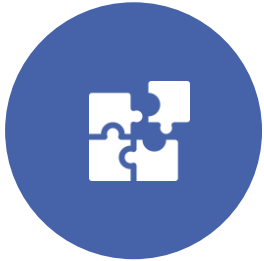
## Creation of a Blockchain Technology Neutral Token Taxonomy Initiative To...

- **Support** both fungible and non-fungible and hybrid tokens
- **Create** a token taxonomy and framework that creates a standard for tokenizing real assets, securities or anything
- Educational, modular, cross industry and **blockchain technology neutral** to dramatically increase diversity and participation
- **Lead by members** with business domain expertise on real projects and requirements
- Deliver **business interoperability** between tokens, driving technical interoperability across networks and platforms

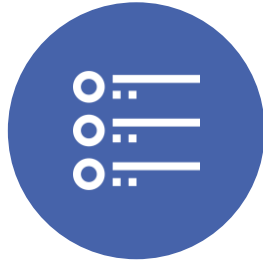




# Token Decomposition



Begin a composition framework; the first concept is to break down tokens into parts where each part is given a syntax symbol



Base Token Types  
Includes properties or data fields



Behaviors



Then organize these parts into categories

# Taxonomy Properties, Behaviors and Controls



Tokens are comprised of properties and behaviors that are interacted with using standard control messages



All tokens will have a common set of base token properties and a collection of non-behavior-related properties



Tokens differentiate themselves based on their behaviors, which in turn create new properties that are bound to them



The taxonomy simply defines these behaviors and the properties that make up a token. Most behaviors are already known, the taxonomy just defines them in a standard way and organizes them



Controls are actions defined as messages that are verb-based descriptions used to invoke behaviors and represent token properties/states

# Base Token Types

## $\tau_F$ - Fungible

Interchangeable, having the same value with other tokens of the same class

- Physical money
- Loyalty points

## $\tau_N$ - Non-fungible

Different values and should not be interchangeable

- Property title
- Art token

## $\tau_N(\tau_F)$

## $\tau_F(\tau_N)$ - Hybrids

Theater ticket – non-fungible base – play name, show date + tranches of non-fungible tokens for theater sections

Artifact group of tokens owned by other tokens and representing them as a single token

# Join the Transformation – For Info



**Enterprise Ethereum Alliance**

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**Token Taxonomy Initiative**

[info@tokentaxonomy.org](mailto:info@tokentaxonomy.org)