

# Blockchain: Decentralizing the Internet

Trent McConaghy & Masha McConaghy

emerge e-day

Amsterdam, Oct 6, 2016

**BIGCHAIN<sup>DB</sup>**













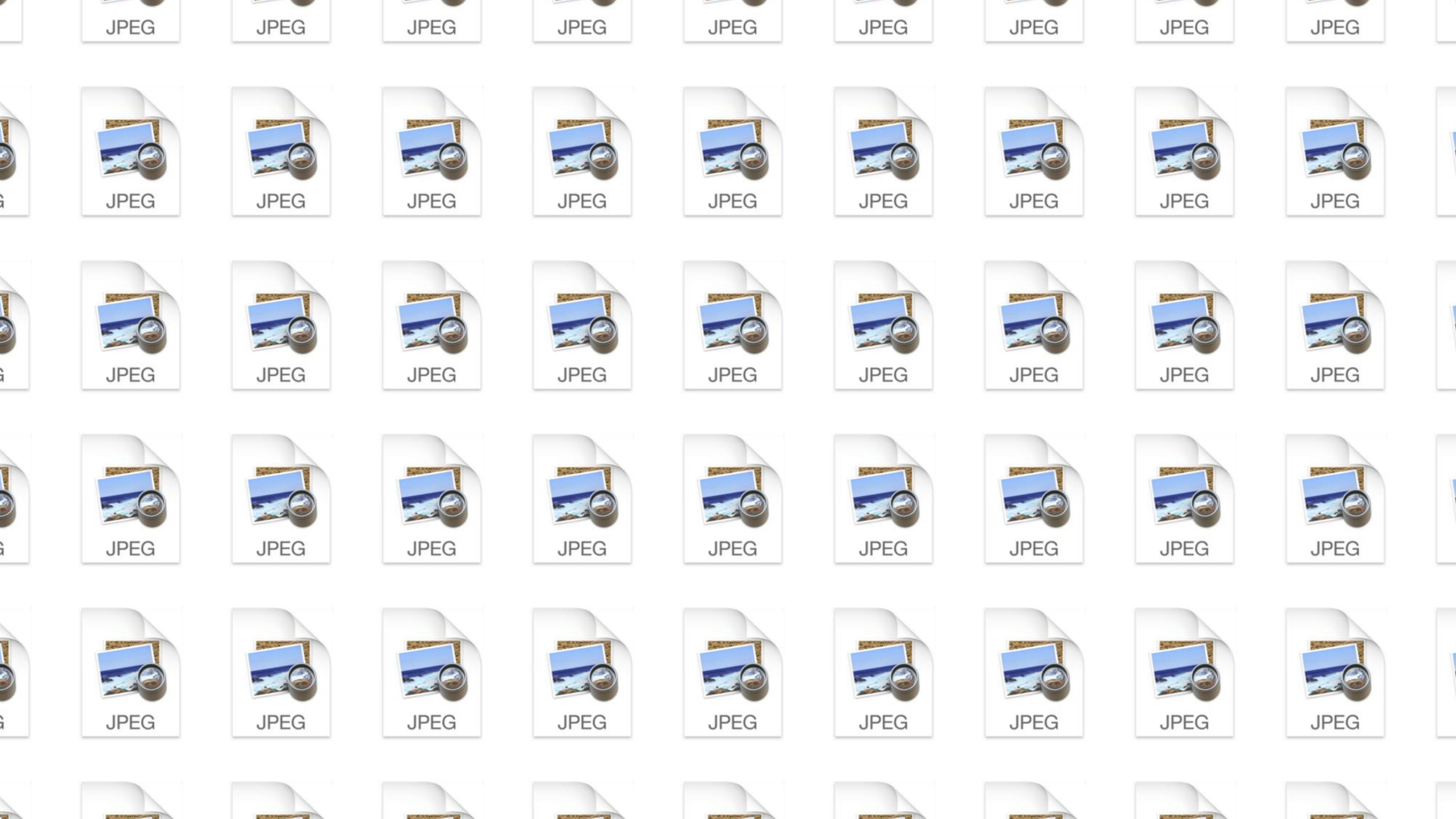
This video is not available in your  
country

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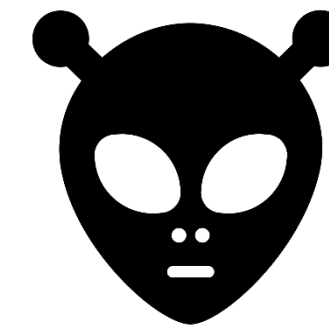














“My conclusion is that whatever you  
put on the internet you lose it.  
Maybe keep the rights, but lose  
the power over it.”

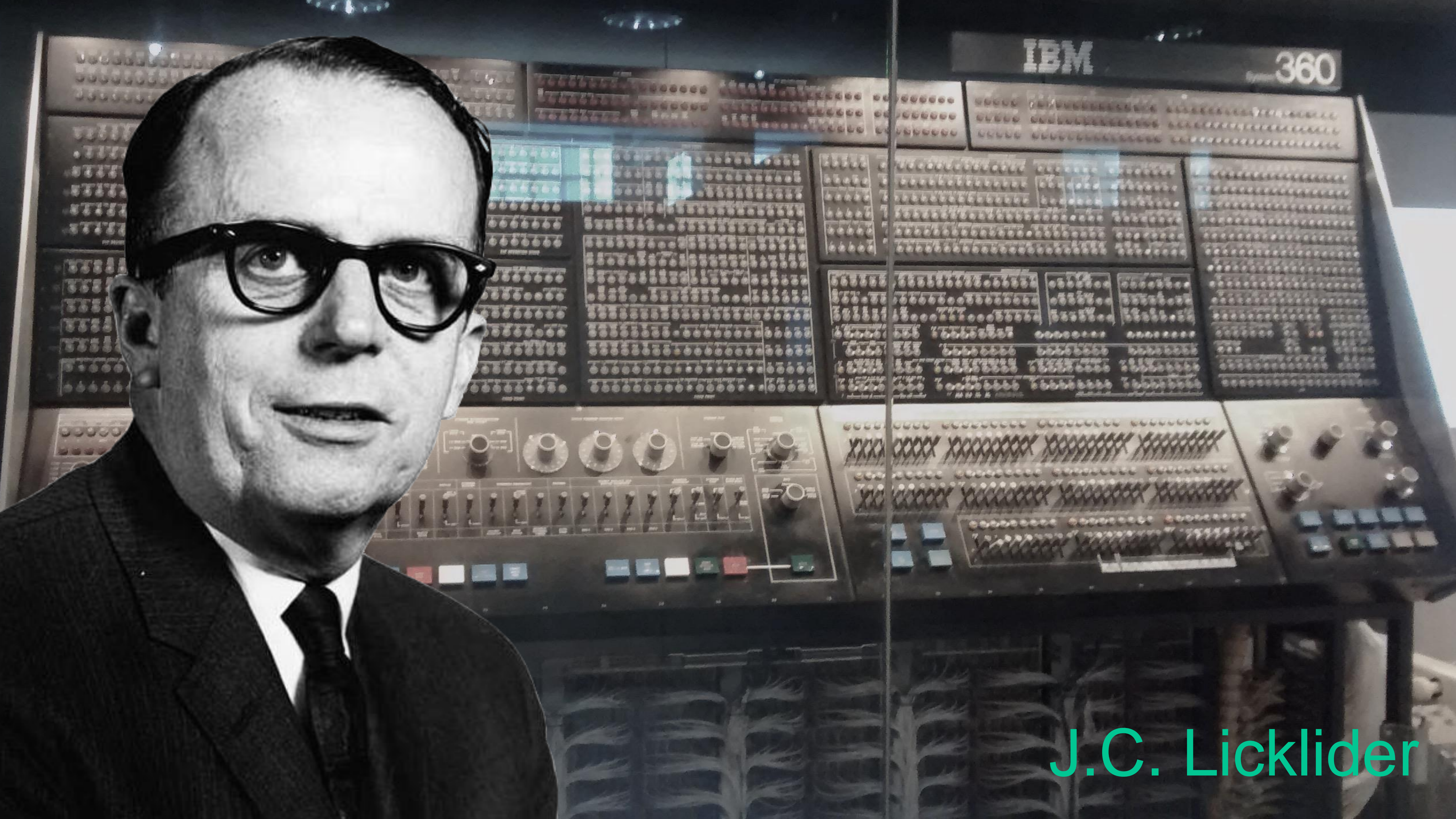
*-User on Shapeways  
blog  
(3D printing  
marketplace)*



The background features a dark blue gradient with numerous thin, teal-colored lines radiating from the top-left corner towards the bottom-right. Interspersed among these lines are many small, light blue dots, creating a starry or particle-like effect.

How did we get here?





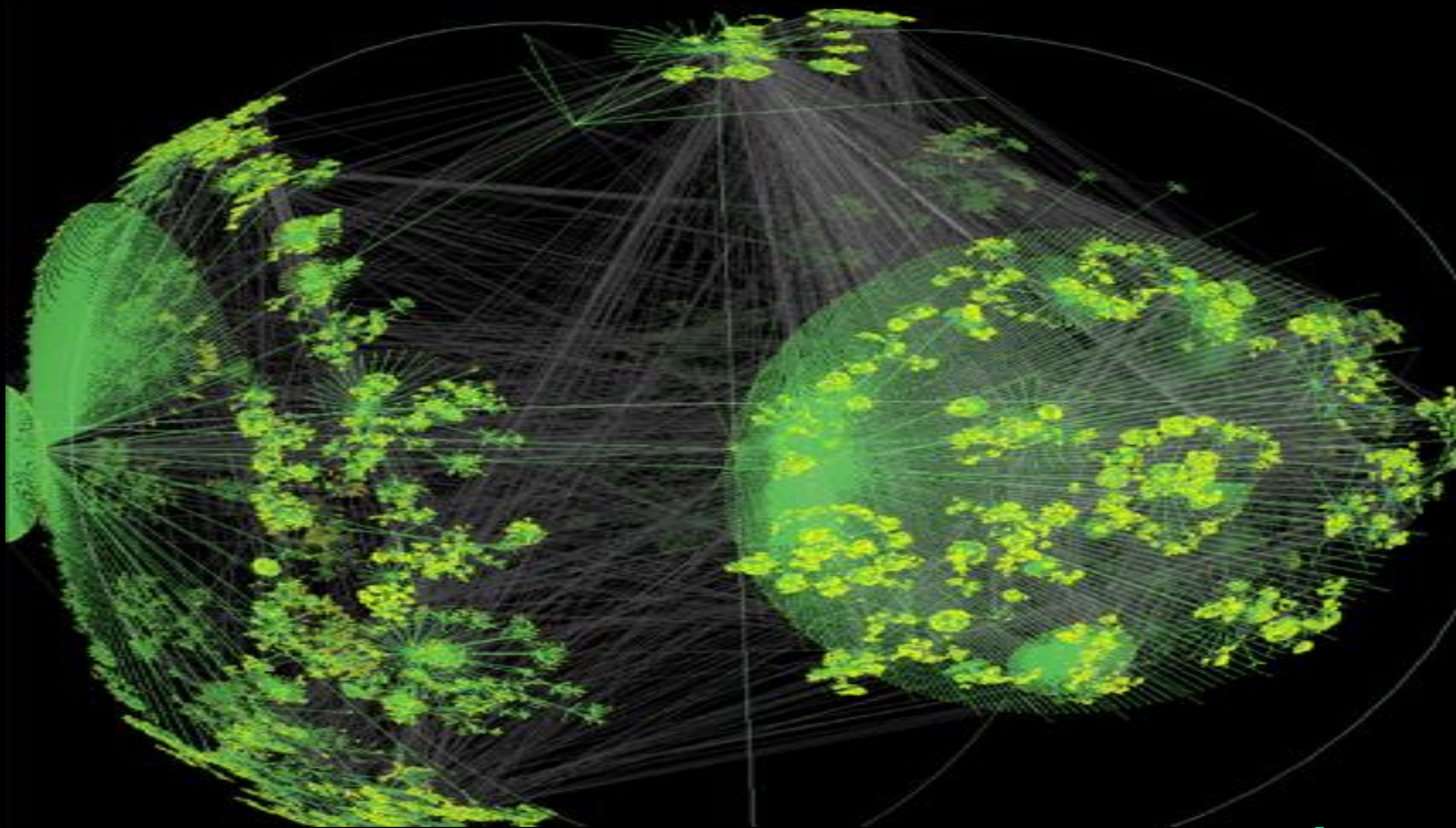
J.C. Licklider





ARPAnet





Internet



## CERN

The European Laboratory for Particle Physics, located near Geneva[1] in Switzerland[2] and France[3]. Also the birthplace of the World-Wide Web[4].

This is the CERN laboratory main server. The support team provides a set of Services[5] to the physics experiments and the lab. For questions and suggestions, see WWW Support Contacts[6] at CERN

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About the Laboratory[7] - Hot News[8] - Activities[9] - About Physics[10] - Other Subjects[11] - Search[12]

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## About the Laboratory

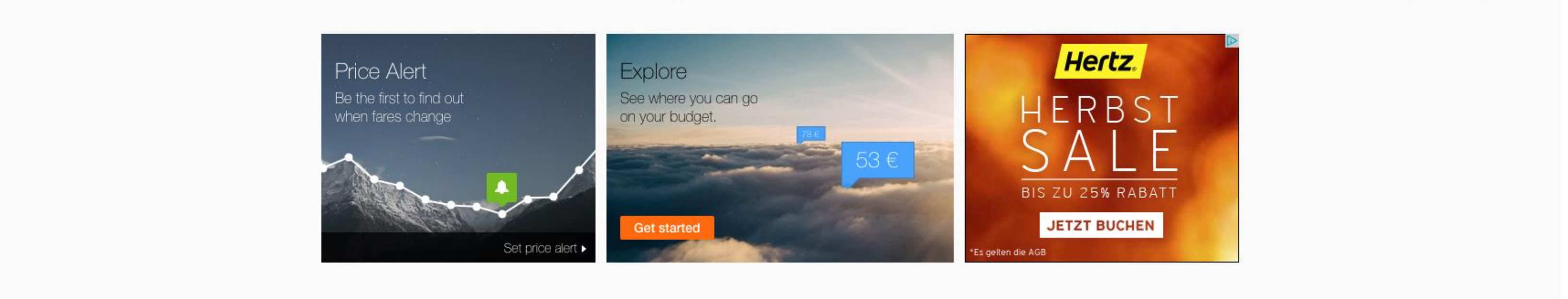
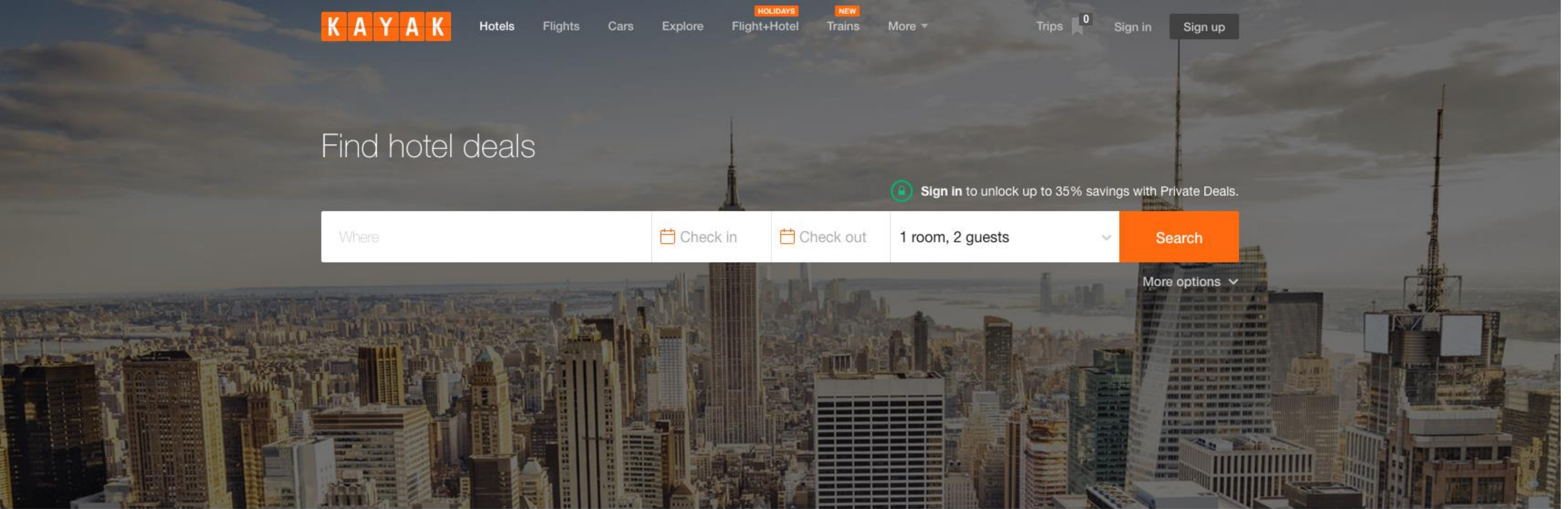
Help[13] and General information[14], divisions, groups and activities[15] (structure), Scientific committees[16]

Directories[17] (phone & email, services & people), Scientific Information Service[18] (library, archives or Alice), Preprint[19] Server

1-45, Back, Up, <RETURN> for more, Quit, or Help:

Web





Start your travel planning here  
Discover our top destinations

Worldwide Popular Germany



Modern Web







A close-up, low-angle shot of a bicycle wheel. The frame and spokes are a vibrant blue. The wheel is positioned on the left side of the frame, with the hub and spokes extending towards the right. The background is dark, with several out-of-focus yellow lights creating a bokeh effect. The text "Centralization of the Web" is overlaid in the upper right corner in a light blue, sans-serif font.

# Centralization of the Web



# A new hope





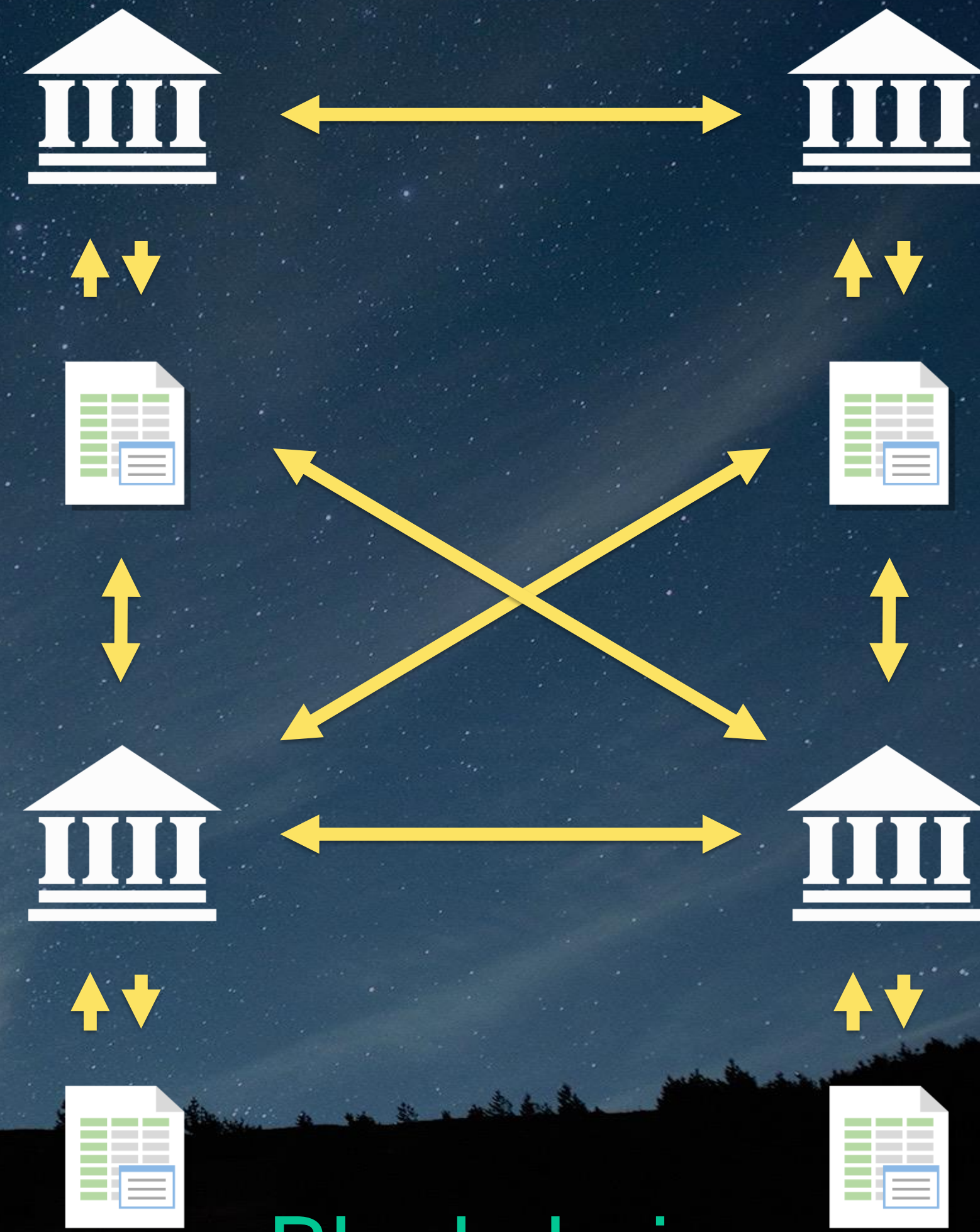






# Blockchain: A Special “Spreadsheet in the Sky”







# Shared global compute infrastructure






# IPDB: Interplanetary Database

## Powered by BigchainDB





A night sky filled with stars and faint nebulae, with a dark silhouette of a forest or hills at the bottom.

How does this *apply*  
to the real world?





Imperial Faberge Easter Egg.  
AFP PHOTO / WARTSKI



Provenance is important for  
Authenticity  
Chain of Ownership  
Valuation







ascribe is a fundamentally new way to lock in attribution, securely share and trace where your digital work spreads.









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## Event Listeners

CREATED BY Harm van den Dorpel  
DATE 2015

EDITION	24 of 100
ID	1CbB2YEnBQUkHjWZvqfNNfjK8wh2cg69zQ
OWNER	Masha McConaghy
ACTIONS	<div>EMAILTRANSFERCONSIGNLOANDELETE?</div>

+ Certificate of Authenticity

- Provenance/Ownership History

Apr. 17, 2015, 16:15:21 Registered by mail@harmvandendorpel.com
Apr. 20, 2015, 20:54:16 Transferred to Masha McConaghy

+ Consignment History

+ Notes



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Share

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### Event Listeners

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Event Listeners

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ACTIONS   [EMAIL](#) [TRANSFER](#) [CONSIGN](#) [LOAN](#) [DELETE](#) [?](#)

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Apr. 17, 2015, 16:15:21  
Registered by mail@harmvandendorpel.com

Apr. 20, 2015, 20:54:16  
Transferred to Masha McConaghy

+ Consignment History

+ Notes



# Certificate Of Authenticity

As of 30 November 2015, 17:36:00 GMT, Masha McConaghy is the owner.  
To verify current owner, please visit <http://ascr.be/1luAOpo>



DOLLAR  
EURO  
SWISS FRANCS  
JEFF KOONS  
BITCOIN

## Currency

Date: 2014

Edition: 3 of 100

Created by: Dan Perjovschi

Owner: Masha McConaghy

### ARTWORK DETAILS

Artwork ID: 17uZBwSbLGfXy3vRRMWzF5PMjFVNc1tkQ2

File: currency-2014.jpg (499 KB)

### PROVENANCE/OWNERSHIP HISTORY

Apr. 30, 2015, 12:36:19 - Registered by mail@cointemporary.com

May. 01, 2015, 09:46:08 - Transferred to admin

May. 08, 2015, 13:04:59 - Transferred to trent

Nov. 27, 2015, 19:35:14 - Transferred to Masha McConaghy

### CRYPTOGRAPHIC STAMP

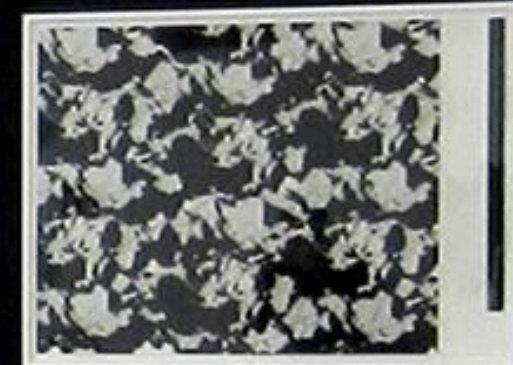
Use the summary and signature below to authenticate this certificate:  
<http://ascr.be/1Sr45Q>

Summary: Dan Perjovschi\*Currency\*3/100\*2014\*2015Apr30-12:36:19

Signature: 438B24CE06182FA3AA82BC285F867D03FB73F3BCC0F73FD8A6  
EC2BFF7088E011E60355B7DC75D5745A9D5CA2A8115512FF835  
C4ABEF6869BF6A991668A820F3FB03A48C6A9E05834716F6500  
68E8E07E5266620BA815948DC265605D23FAF016CB46ACD4BC  
BE75F08D0DEBD7AF55E4CB085B9A0A14583F135DBB399121B24  
ED1L




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Year Created

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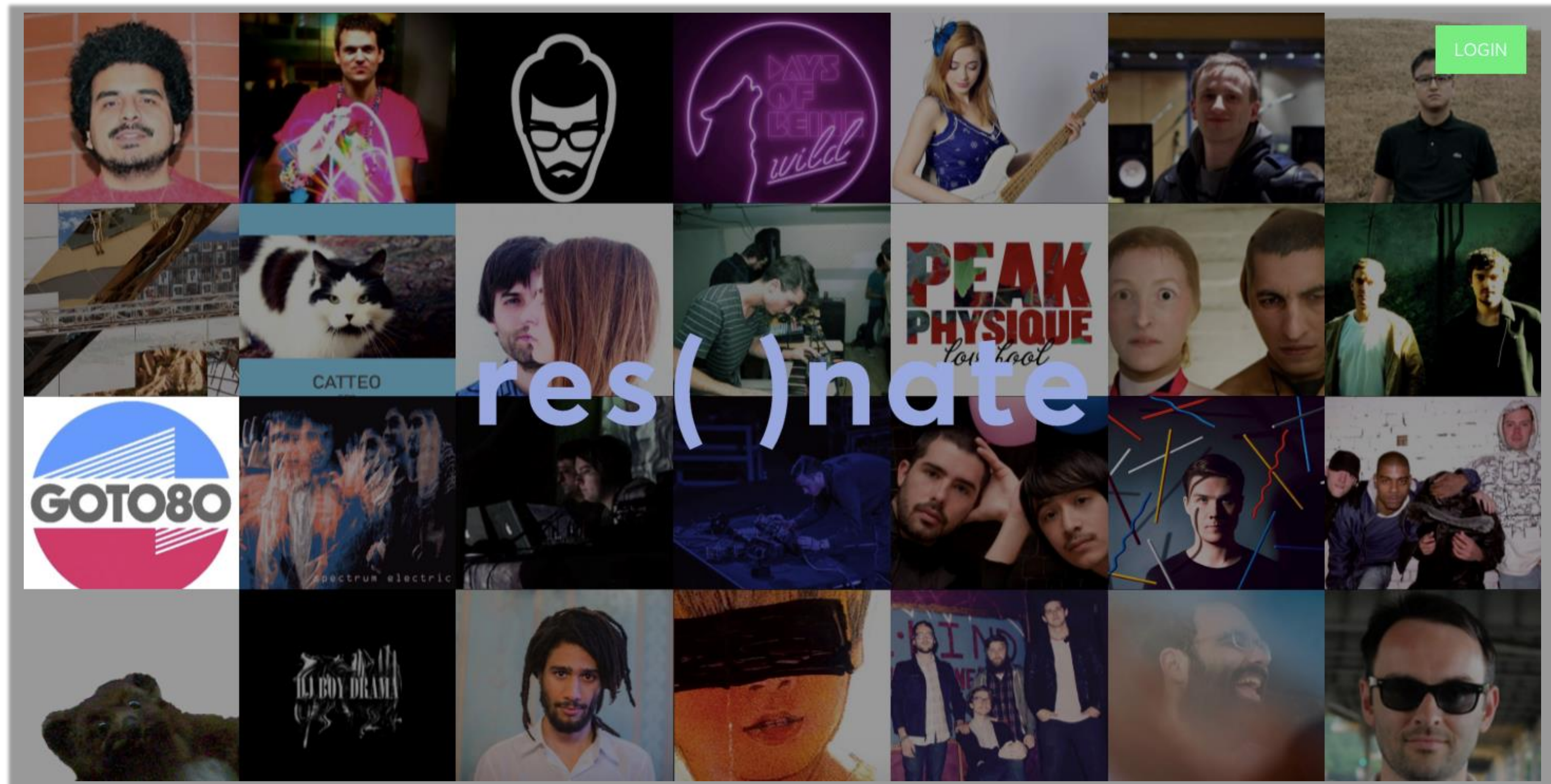
Real World Use, by Vertical





Intellectual Property  
(IP)





Resonate Coop



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# OWNAGE

AN ETHEREUM BASED PLATFORM TO DISTRIBUTE, COLLECT  
AND TRADE DIGITAL GAME CONTENT.

JOIN US FOR THE RIDE...

My name is...

My email address is...

SUBMIT

Ownage





# Identity (Sovereign Personal Data)



## Our peer to peer network

Traditional



**Centralized**

Reliant on middlemen

Synereo



**Decentralized**

Applications working together

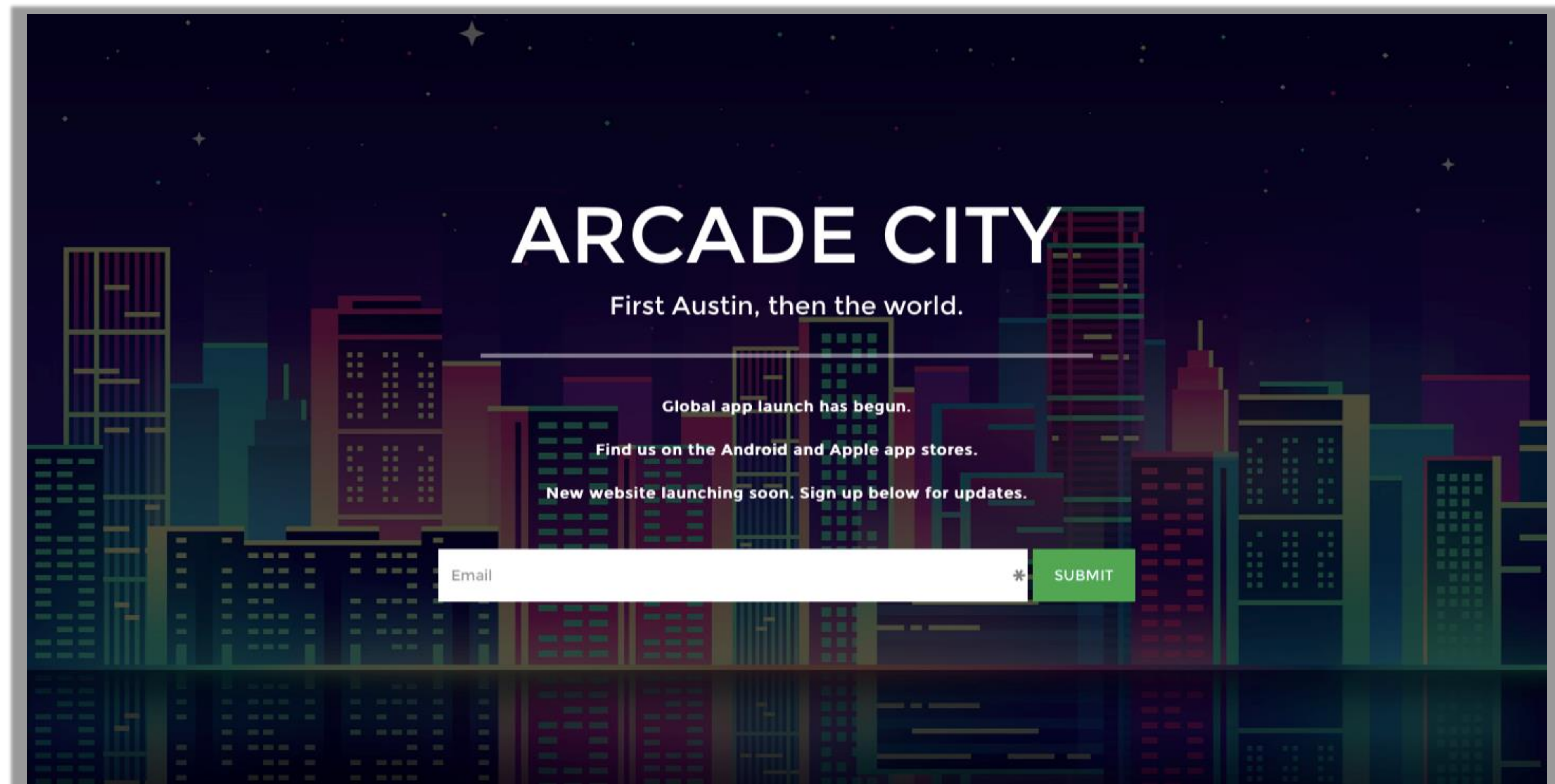
Social Network:  
Synereo





Reputation: Backfeed





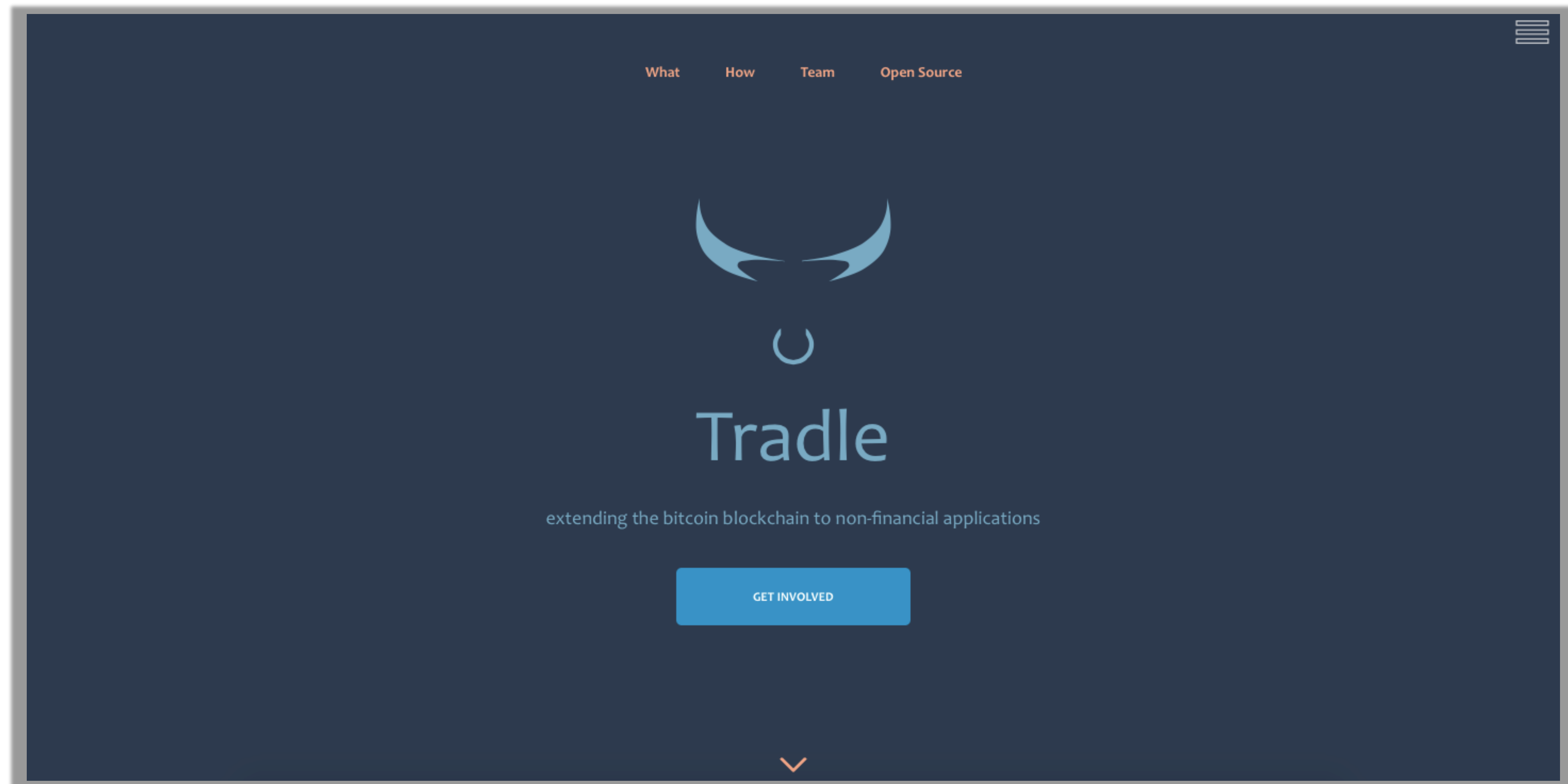
Ride Sharing: Arcade  
City





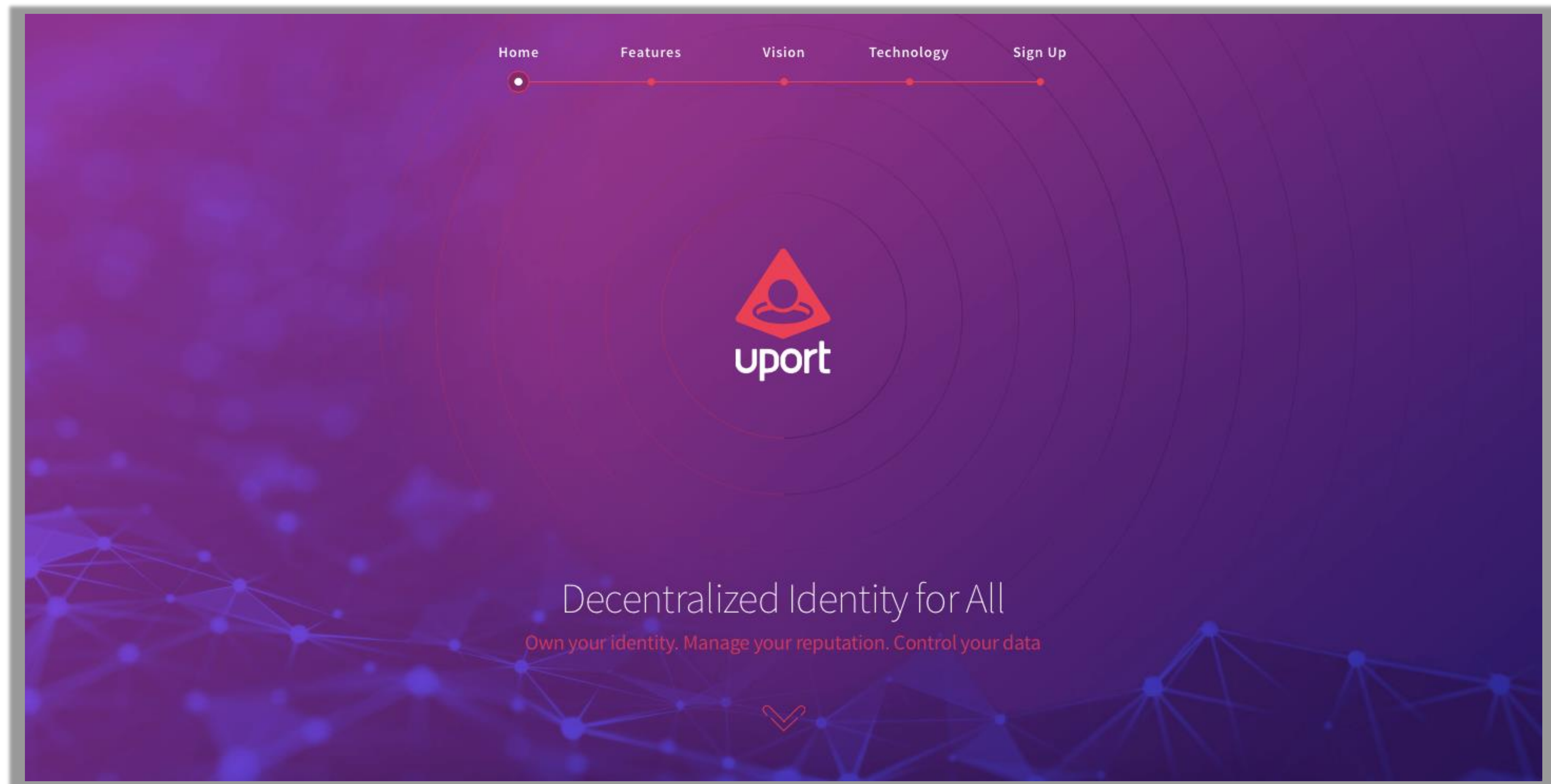
# Identity (Assurance)





Banking Assurance:  
Tradle





Login: uport





Finance



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# Join the Global Settlement Network

Instant, certain, low-cost international payments

[Watch Video](#)

## Enabling the Internet of Value

Global commerce is rapidly changing. Businesses are increasingly global from day one and consumers are programmed to expect on

# Money Transfer:

# Bitcoin



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# R3

R3 is an innovation firm focused on building and empowering the next generation of global financial services technology.

## Bank consortium: R3CEV



Stellar is a platform that connects banks, payments systems, and people.

Integrate to move money quickly, reliably, and at almost no cost.

SEE WHO USES STELLAR



THE FUTURE OF BANKING IS HERE

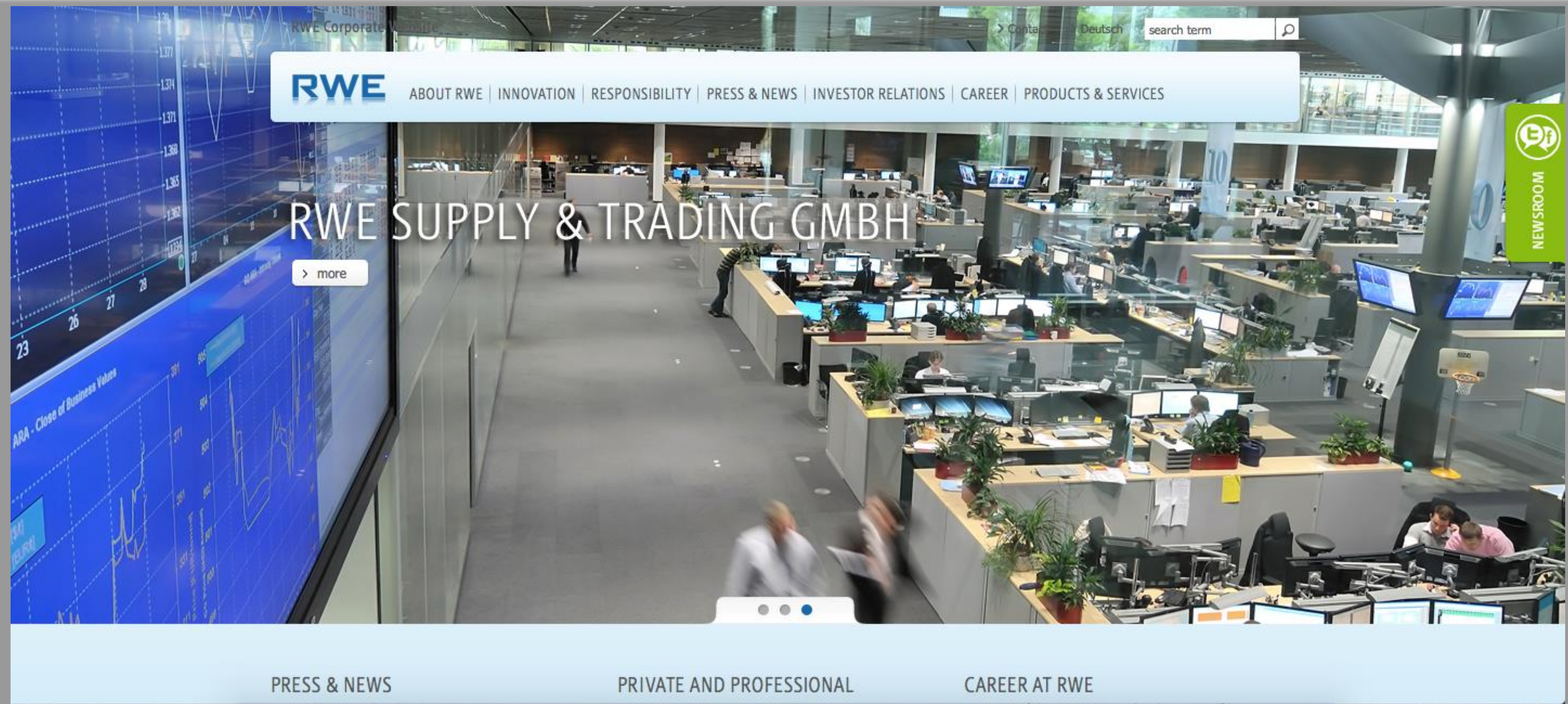
The unbanked: Stellar





Energy





RWE

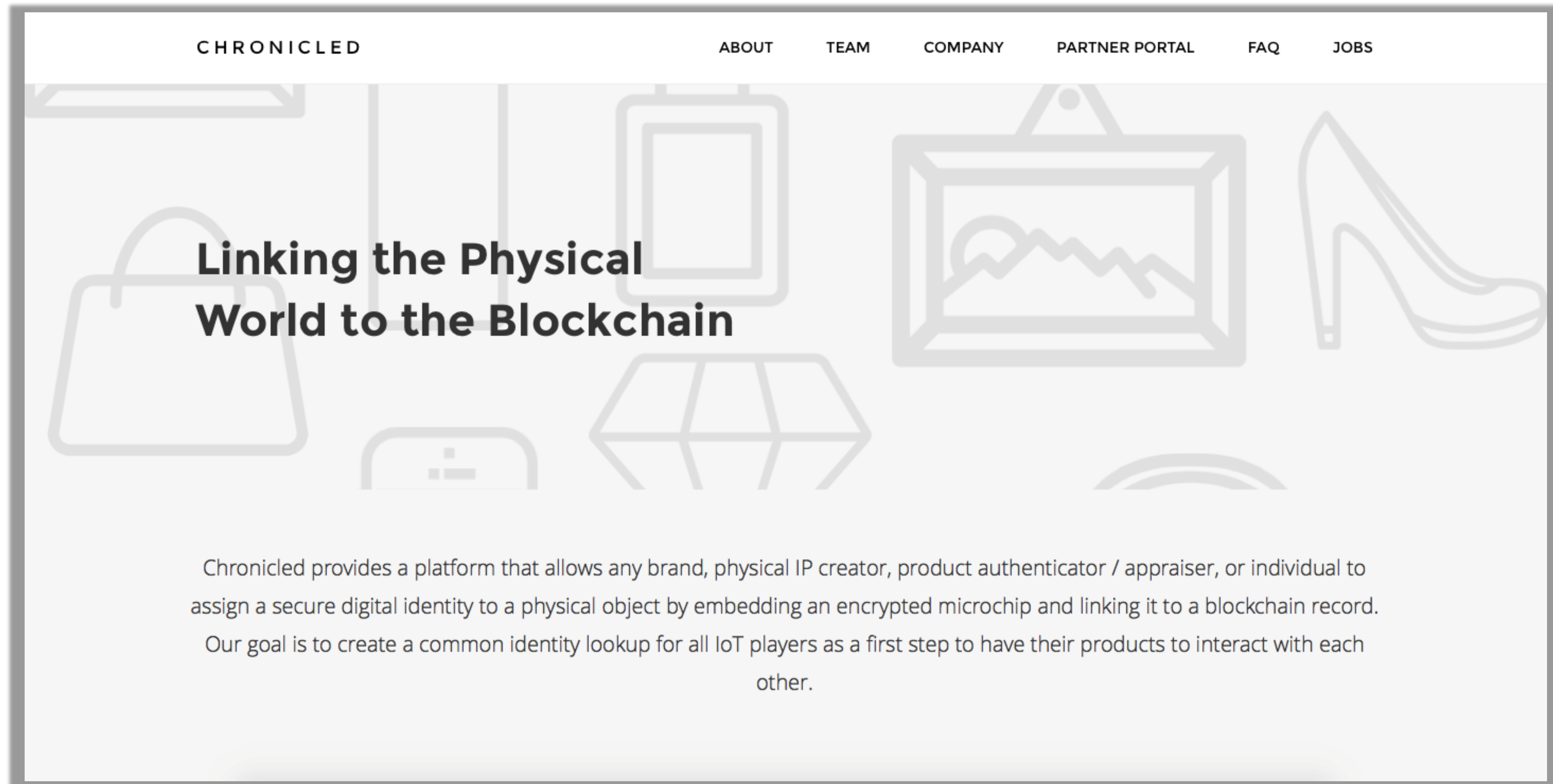


# Supply Chain



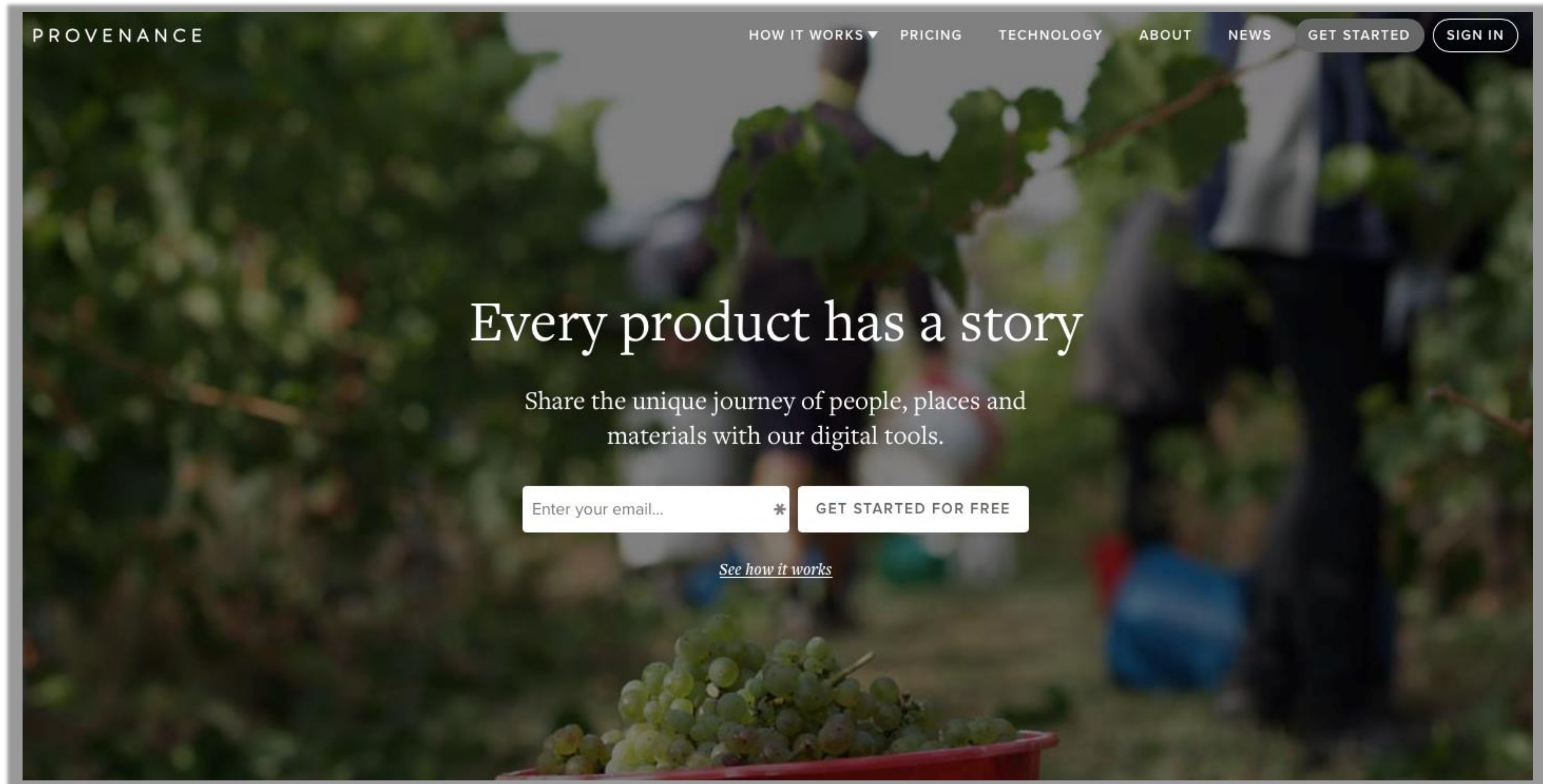


# Shoes: Chronicled



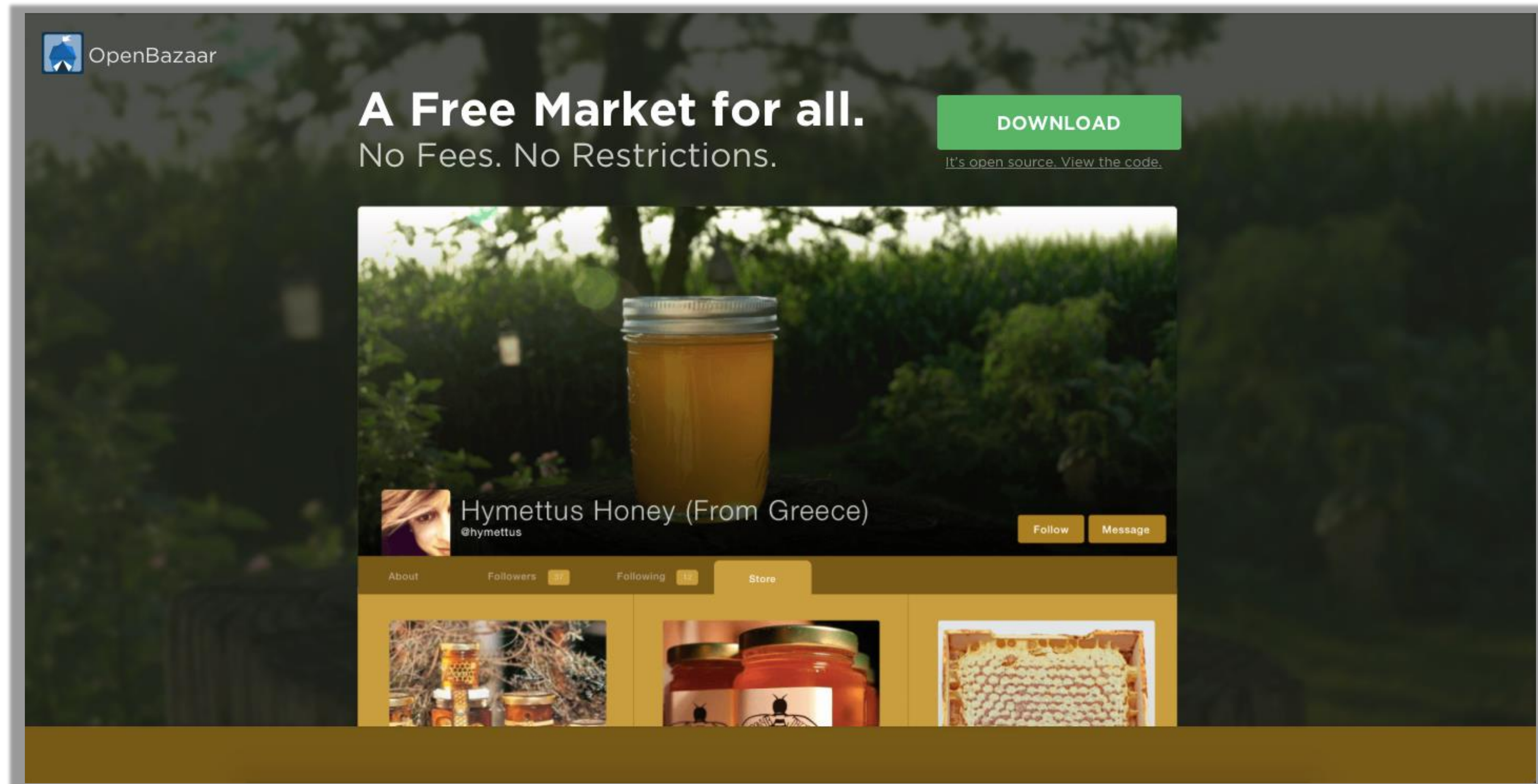


# Food: Provenance





# Online retail: OpenBazaar





Government



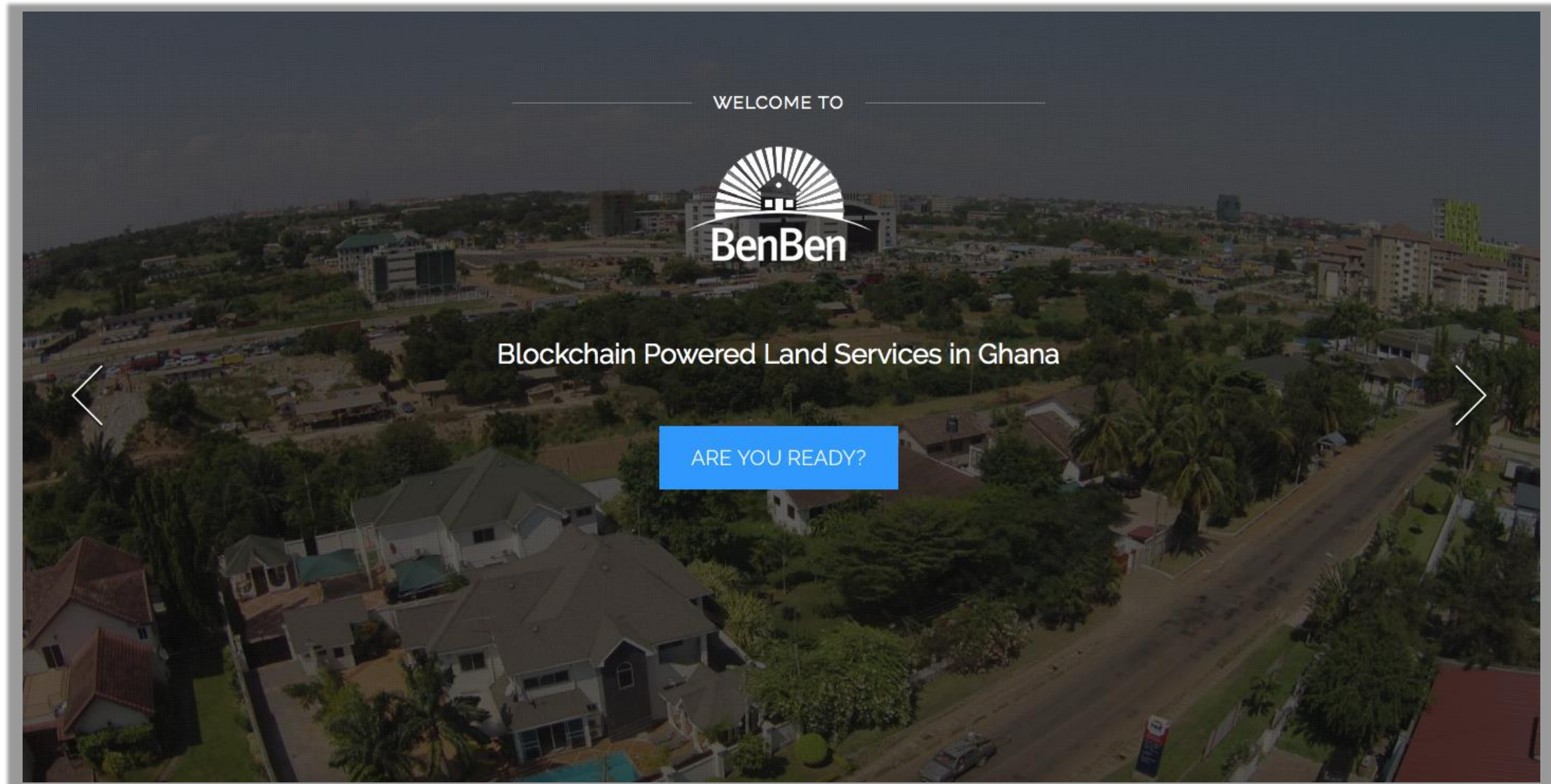


# Government Transparency: Estonia + Guardtime





# Land registry: BenBen





# 3 Blockchain Benefits

Decentralized / Shared Control

Immutability / audit trail

Tokens / exchanges



# Generating Opportunities: Vertical x Benefit

	Decentralized / Shared Control	Immutability / Audit trail	Tokens / Exchanges
Intellectual Property Identity		Dig art – ascribe	
			You?
Finance	R3	You?	
Energy	You?		
Supply Chain			Retail marketplace - OpenBazaar
Government			



# Taking the next step with blockchains

1. Identify use cases, e.g. using tools here
2. Validate use cases with blockchain experts
3. Start experimenting. [github.com/bigchaindb](https://github.com/bigchaindb)
4. Find the right expertise ;-)



Blockchains change the relationship between digital & dollars.  
This could change everything.



Opportunity beckons. Are you ready?

Trent McConaghy & Masha McConaghy

**BIGCHAIN<sup>DB</sup>**  
bigchaindb.com