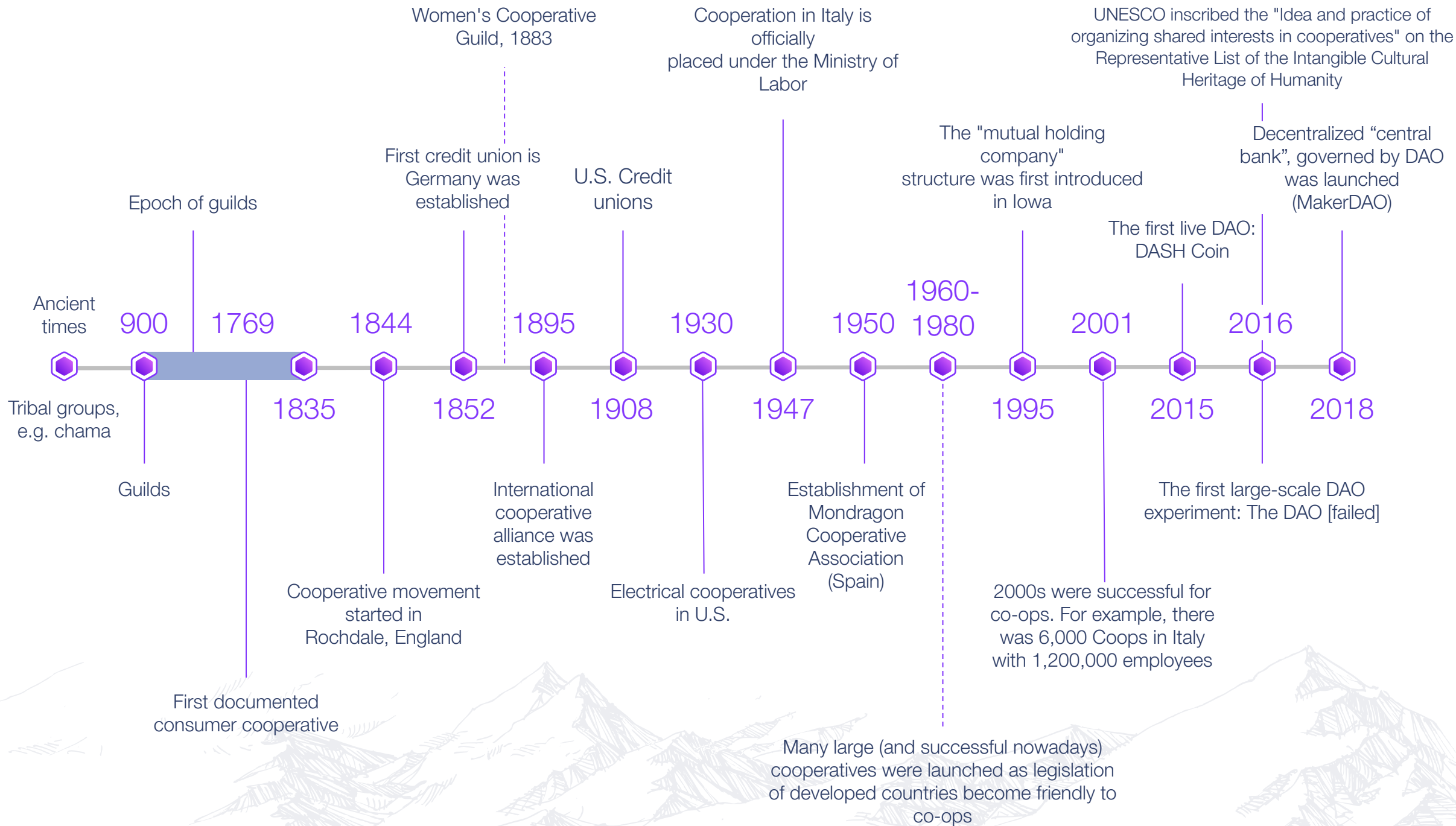


AKROPOLIS

DAOs, we started nothing:
lessons for DAO design
and governance from
co-operatives and mutuals
throughout centuries
of collaboration



Large member-owned organisations have existed in all major markets globally for decades...



1972

The union of agricultural cooperatives in Japan
>\$40 bln yearly turnover



1961

Power generation cooperative, USA
Serves >3 mln members in 9 States
>\$2 bln yearly turnover



1965

Cooperative Bank of Kenya
Serves >7.5 mln customers
\$3.9 bln in assets

USA



Savings; consumer loans; mortgages; credit cards;
investments; online banking

> \$90 bln in assets
> 8 mln members

Canada



Insurance; Stock brokerage; Investment; Bank; Asset-based
lending

> \$210 bln in assets
> 7 mln members

Germany



Union of german Cooperative Banks

> EUR 935 bln in assets
> 18 mln members
> 875 Cooperative Banks



INFORMAL SAVING CIRCLES: A WELL-RESEARCHED DAO ARCHETYPE

	Research	Press/Media	Competitive Landscape	Connectors	Potential partners	Smartphones tech stats	Apps research	SHARE	
	Grid 2	Hide fields	Filter	Group	Sort	Color			
	Name	Rating	Type	...	Authors	University	Key Words	Abstract	Executive su
1	Strategies for community improvement to tackle pov...	★★★★★	Academic res...	2018	Fredah Mwiti Christ		Community-Bas...	Marginalized commu...	It is an empirical
2	Chamas for Change: an integrated community-based...	★★★★★	Abstract with ...	2015	Christoff Ersen-Deb		Pregnancy Infanc	no abstract	Authors tried to
3	Informal Groups and Health Insurance Take-up Evide...	★★★★★	Academic res...	2018	Matthieu Chemin		Customer acqui...	This paper presents t...	This article is de
4	Grain today, gain tomorrow: Evidence from a storage ...	★★★★★	Academic res...	2018	Shilpa Aggarwal Eili		ROSCA PICS Ban	Many farmers in the d...	Authors designe
5	The Effect of Savings Accounts on Interpersonal Fina...		Academic res...	2017	Pascaline Dupas An	Stanford University		The welfare impact of...	
6	The Economics of Rotating Savings and Credit Associ...	★★★★★	Presentation	2014	Keaira Bohannon		Rotating savings	It is a presentation th...	
7	You Can't Save Alone: Commitment in Rotating Savin...		Academic Res...		Mary Kay Gugerty	University of Washington		This article examines ...	
8	Enforcement in Informal Saving Groups		Academic res...		Siwan Anderson Jes	University of British Colu...	roscas enforce	Informal groups cann...	
9	Interest Rates in Savings Groups: Thrift or Threat?		Academic res...		Maité le Polain Oliv	Université Catholique de ...		Savings group (SG) m...	
10	Hearthholds of mobile money in western Kenya				Sibel Kusimba Yang	American University, Was...	Mobile payments	Kenyans use mobile ...	
11	Reciprocity and exclusion in informal financial institut...			2018	Shimpei Koike Mayu		ROSCA experime	Group cooperation is ...	
12	Savings Constraints and Microenterprise Developme...							Does limited access t...	
13	Can Self-Help Groups Really Be "Self-Help"?							We provide an experi...	
14	The Rotating Savings and Credit Association - An Ec...		Master's thesis	2010	Astrid Marie Jorde...				
15	The Economics of Rotating Savings and Credit Associ...		Scientific arti...	1990	Timothy J. Besley S				
16	PROMISES KEPT: ENFORCEMENT AND THE ROLE OF...		Scientific arti...	2002	N. S. CHITEJI				
17	The Rotating Savings and Credit Associations (ROSC...		Review Article	2015	Frank Kabuya		Informal financi...		
18	THE MICROECONOMICS OF AN INDIGENOUS AFRIC...		The Book	1991	Rogier van den Bri...				



Saving groups (chamas)

- Throughout the centuries millions of people across Africa use and trust savings groups and other informal savings mechanisms (ISMs).
- Savings groups have proven to be one of the most effective, low-cost mechanisms to provide basic financial services to the poor, particularly in rural areas, at a very large scale.
- Savings Group is comprised of 15-25 self-selected individuals who save together and take small loans from those savings.
- Savings Groups provide members the opportunity to save frequently in small amounts, access to credit on flexible terms, and a basic form of insurance. They are owned, managed and operated by their members; they are, by design, financially and institutionally sustainable, and continue to operate independently after a 9-12 month training period.
- Savings groups are generally a more transparent, structured and democratic version of the informal financial services found in the villages and urban slums in many parts of the developing world.



Chamas: the numbers



300K

registered chamas are
operating in Kenya



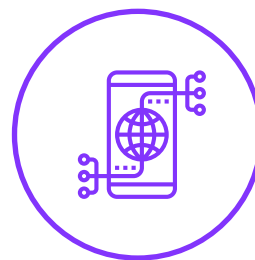
\$3.5B

AuC



~900K

number of unregistered
chamas in Kenya



~77%

Mobile internet users in
Kenya



Chamas: motivation and problems

Table 1: Self-reported Reasons for Joining a Rosca

Panel A: What is the most important reason why you joined a rosca? (open-ended)	Number of respondents	Percentage of total
Can't save at home, money gets used on other things	109	36
Get strength to save from sitting with others/can't save alone	65	21
Group wanted to make sure that each member had a certain item	50	17
Can't save at home, my family will use [the money]	18	6
Can get a lump sum to buy a big item	17	6
Safer place to save/ fear of theft	8	3
Can't save at home, my husband will use [the money]	3	1
To visit each other's houses and see how the person is living	3	1
Other	22	7
Number of observations	303	
Panel B: Here are 7 reasons why you might belong to a rosca, which is most important to you personally?	Number of respondents	Percentage of total
Get strength to save from sitting with others/can't save alone	105	35
Group wanted to make sure that each member had a certain item	74	24
Can't save at home, money gets used on other things	51	17
To visit each other's houses and see how the person is living	39	13
Safer place to save/ fear of theft	11	4
Can't save at home, my family will use	6	2
Can't save at home, my husband will use	6	2
Other	5	2
Number of observations	303	

Table 10: Major problems encountered by rosca

Problem	Count	Percentage
Leadership and rivalry	9	5,23 %
Money and theft	16	9,30 %
Irregular meeting attendance	84	48,84 %
Irregular payments of due contributions	127	73,84 %
Some members do not obey the rules	15	8,72 %
Other	3	1,74 %
Total	172	

Table 11: Reasons for no longer participating in rosca

Reason	Count	Percentage
Could not pay regularly / amount was too high	92	40,17 %
There were problems with money/theft	19	8,30 %
There were problems with leadership and rivalries	35	15,28 %
Collapsed - leadership and rivalry problems	9	3,93 %
Collapsed - money problems/ theft	13	5,68 %
Collapsed - members could not pay	41	17,90 %
Collapsed - members lost interest	13	5,68 %
Other Reasons	7	3,06 %
Total Observations	229	

The first Broodfonds group was founded in 2010 by entrepreneurs Biba Schoenmaker, Haiko Liefmann, and André Jonkers. Seven years later, there are now almost 22000 members in close to 500 Broodfonds groups throughout the country — each made up of freelancers living in the same geographical region.

- ◆ Broodfonds are built from and for local networks, with 20-50 members in a self-governed structure of social insurance.
- ◆ Participants pay a set monthly contribution to a pool, plus a small administrative fee, that's made up of contributions from other self-employed folks. When someone in the group needs the funds, they file a “claim” with Broodfonds group leaders and are gifted the money for as long as they need it — receiving it as a gift allows recipients to accept the funds without paying income taxes.
- ◆ If you're sick for more than a month, you receive donations from the group. And what's best - this is not only about cash, you get emotional + social support.



Broodfonds



Mutual Credit Networks

- ◆ The mutual credit networks are successfully operating in countries such as the UK, Italy, Germany and others. Examples are:



Sardex (Italy)



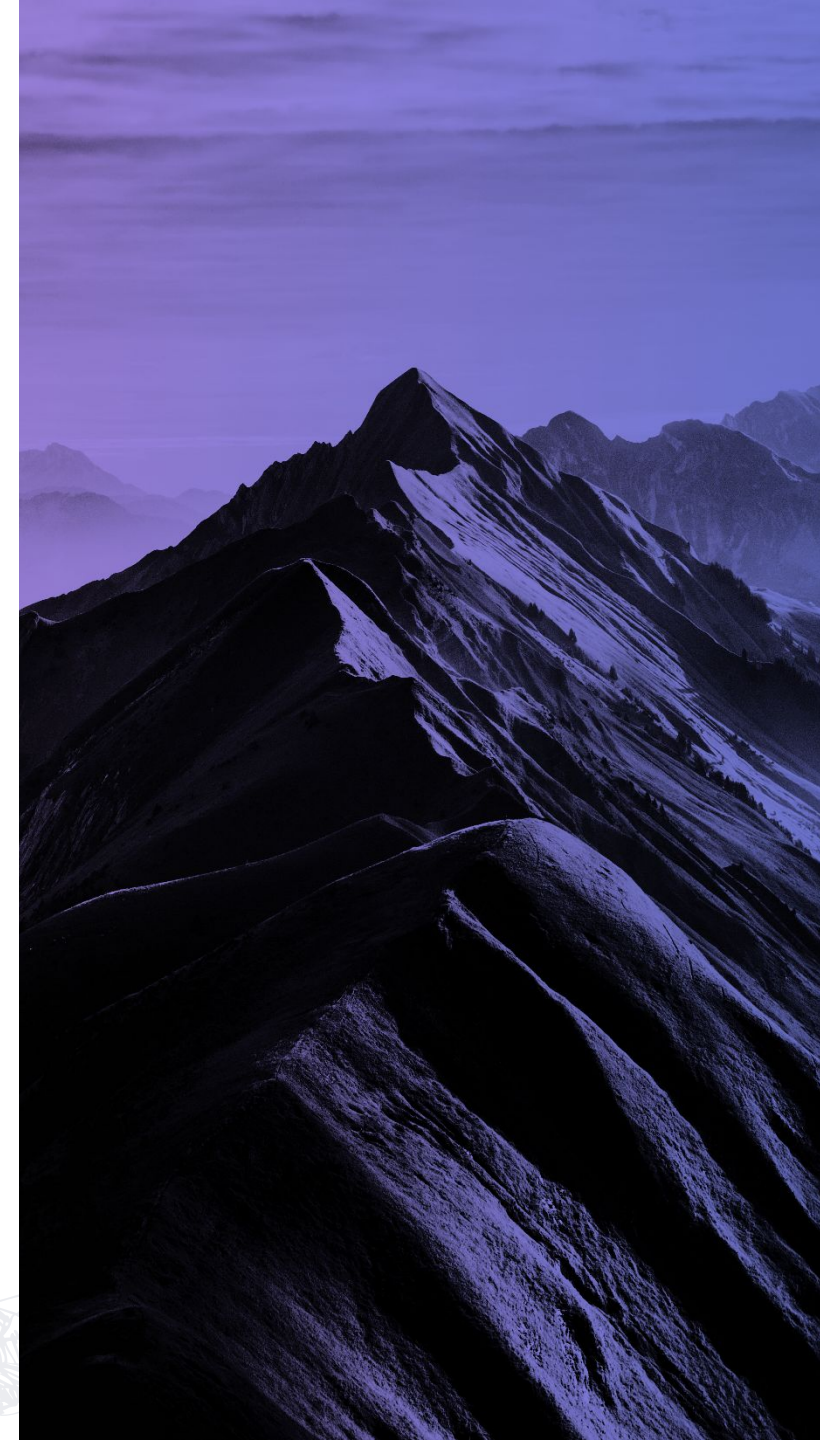
Wir (Switzerland)

- ◆ The goal of such a network is to allow the exchange of goods and services between network members without using traditional fiat money and banking system.
- ◆ Each member defines his “offers” and “wants” and establishes connections according to his business interests. Each member runs a “credit line” with others, and this credit line is interest-free.
- ◆ This allows to cut expenses and increase profit for goods producers participating in the network.

The new paradigm

- ◆ The modern world is changing rapidly and the financial industry does not keep pace with these changes. Financial inclusion / Corrupt & Expensive Banks are only a small set of problems that the traditional financial industry faces. We wanna fix it.
- ◆ Our approach will combine the traditional community financial products (chama-like) and modern technologies: mobile, blockchain, AI. Financial Stack based on Savings Groups allows you to build a more sustainable human-oriented financial industry that can adequately respond to the challenges of our time.
- ◆ We are leveraging centuries-old anthropological and economic behavior patterns that existed in communities worldwide prior to emergence of modern financial institutes. We solve its main problem – interoperability and scaling*

*traditional chamas can't scale beyond the “pre-Dunbar number”, which 15-20 as demonstrated empirically <https://medium.com/@cstarendal/the-dunbar-number-40c826da34c3>



What you can build



Your own saving circle or a mutual



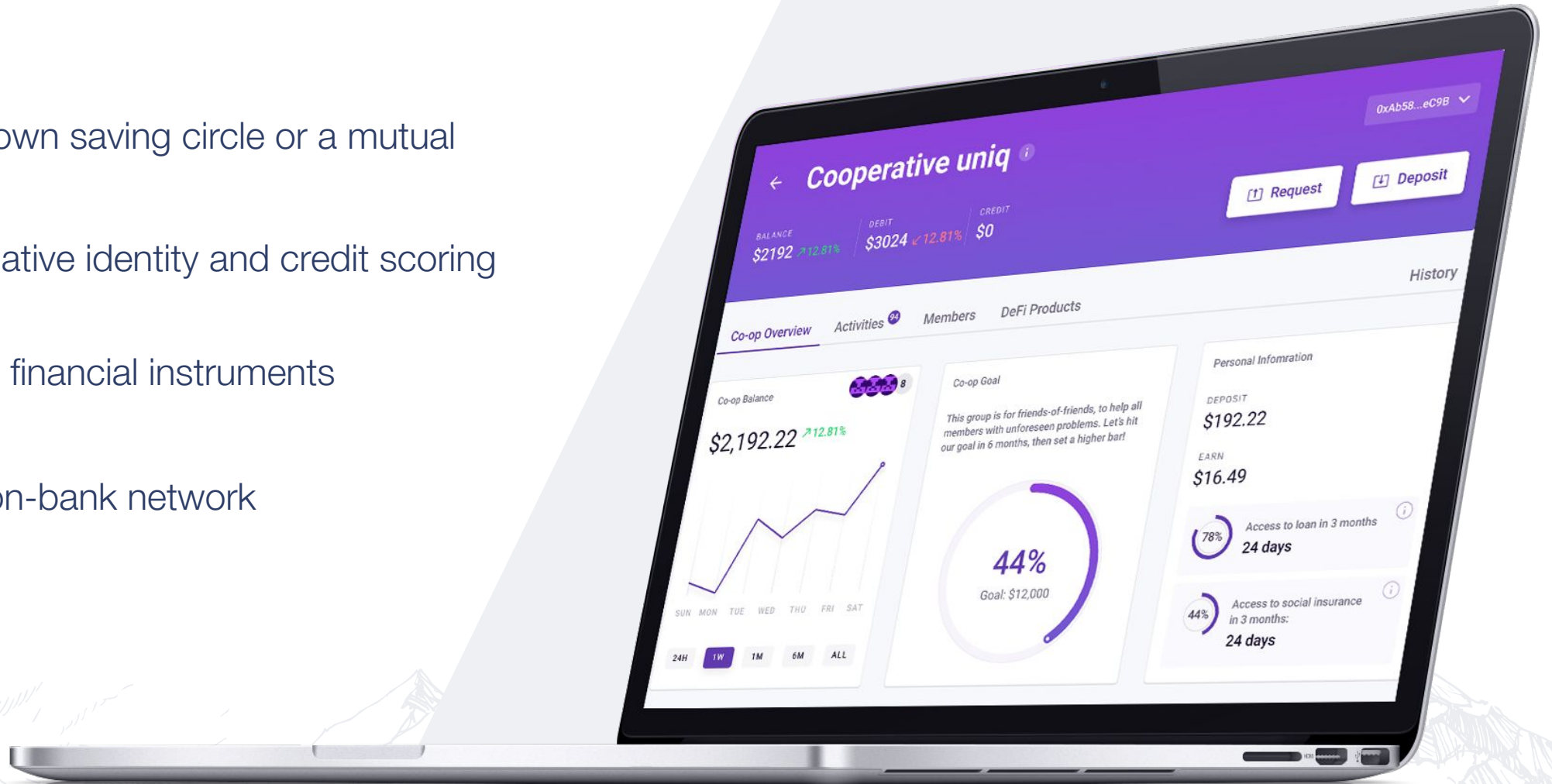
Alternative identity and credit scoring



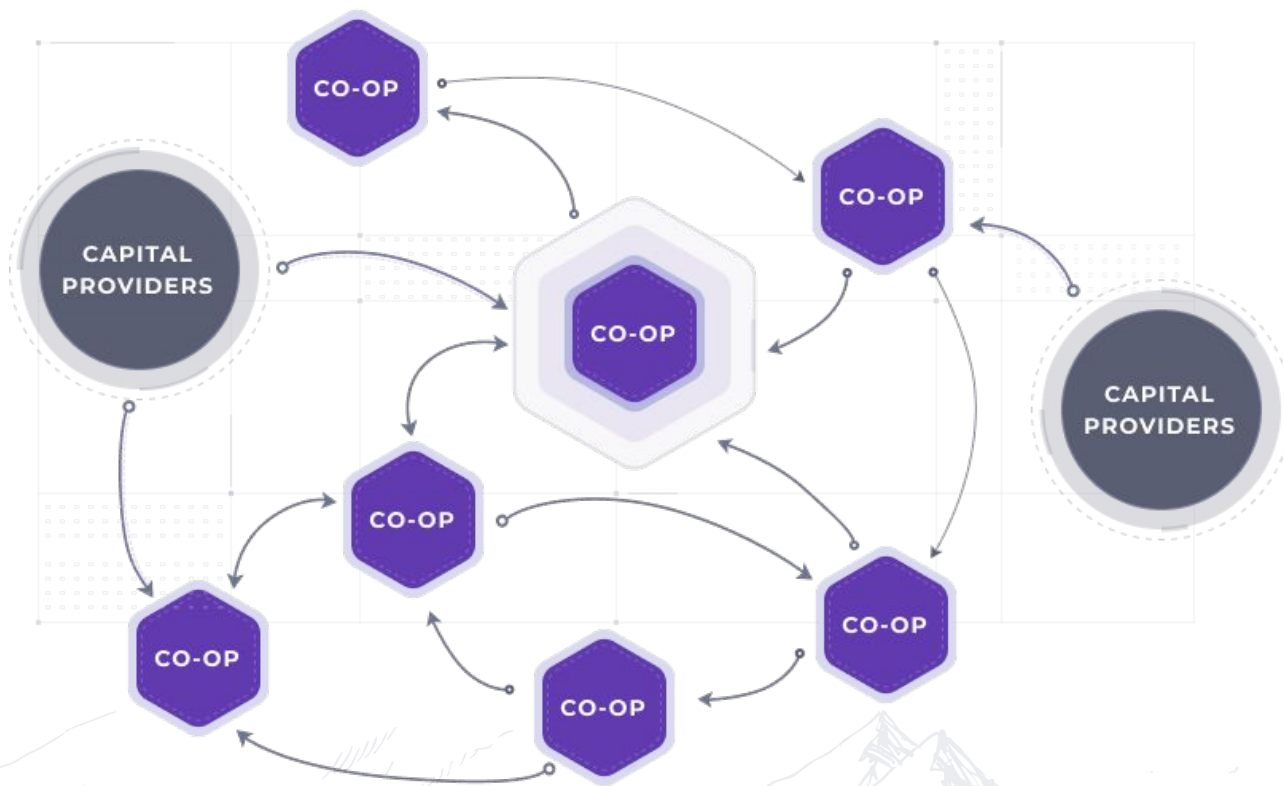
Novel financial instruments



An non-bank network



Saving groups and co-ops



- ◆ Akropolis-based saving groups/co-ops are a form of AFO, operating on DAO principles.
- ◆ Funds of members are safely kept in smart contract, and can be released only after voting and final confirmation that this transaction is approved by a majority of members.
- ◆ The funds are stored in stable coin DAI (or any other stable currency), which value does not depend on the problems of the local economy.
- ◆ Such AFO can seamlessly interact with web3, safely investing money using Compound, Dharma and other decentralized finance services.
- ◆ In case of necessity in the external funding, such AFO can take a loan from other AFO or foreign lender.



Comparison: cooperative, mutual, DAO

	Cooperative	Mutual	DAO
Capital source	Funded by members	Members don't directly contribute to the capital	Funded by members
Values	Members, achievement of efficiency via human cooperation	Provide quality service to members	Community
Goal	To achieve goal of cooperation, depends on type of cooperative (ex. Agriculture, Worker etc)	To provide services/goods to members of a mutual organization	Collective decision making regarding allocation of financial resources and core business operation
Privacy	Operate with KYC for members, no privacy.	Operate with KYC for members, no privacy.	Could operate in completely private mode
Governance	Different models, most popular – members elect delegates/board of directors	Different models, most popular – members elect delegates/board of directors	No hierarchy, directly governed by members (token holders)
Legal structure	Legislation includes special legal forms for cooperatives in majority of countries	Legislation includes special legal forms for mutual organizations in majority of countries	At the present moment DAOs are not presented in legal field
Transparency	All information regarding mutual operation is available for members, but fraudulent actions are not excluded	All information regarding mutual operation is available for members, but fraudulent actions are not excluded	Completely transparent



➤ The DAO concept

- ◆ Fully-digital type of organization which offers goods or services to community
- ◆ Based on blockchain technology (pre-defined logic of a smart-contracts)
- ◆ Acts in interest of members
- ◆ Non-hierarchical management system
- ◆ Collective decision-making process
- ◆ Members often are simultaneously customers and workers

➤ Cooperatives and mutuals

- ◆ Type of organization which offers goods or services to their members
- ◆ Based on centralized software solutions and huge paperwork
- ◆ Act in interest of members, re-invests profit into further development
- ◆ Predominantly hierarchical management system based on election of delegates/board of directors
- ◆ Decisions are made by narrow group of members (elected delegates/directors)
- ◆ Members can be simultaneously customers and workers, but it is not a rule



ARAGON



DIGIXDAO



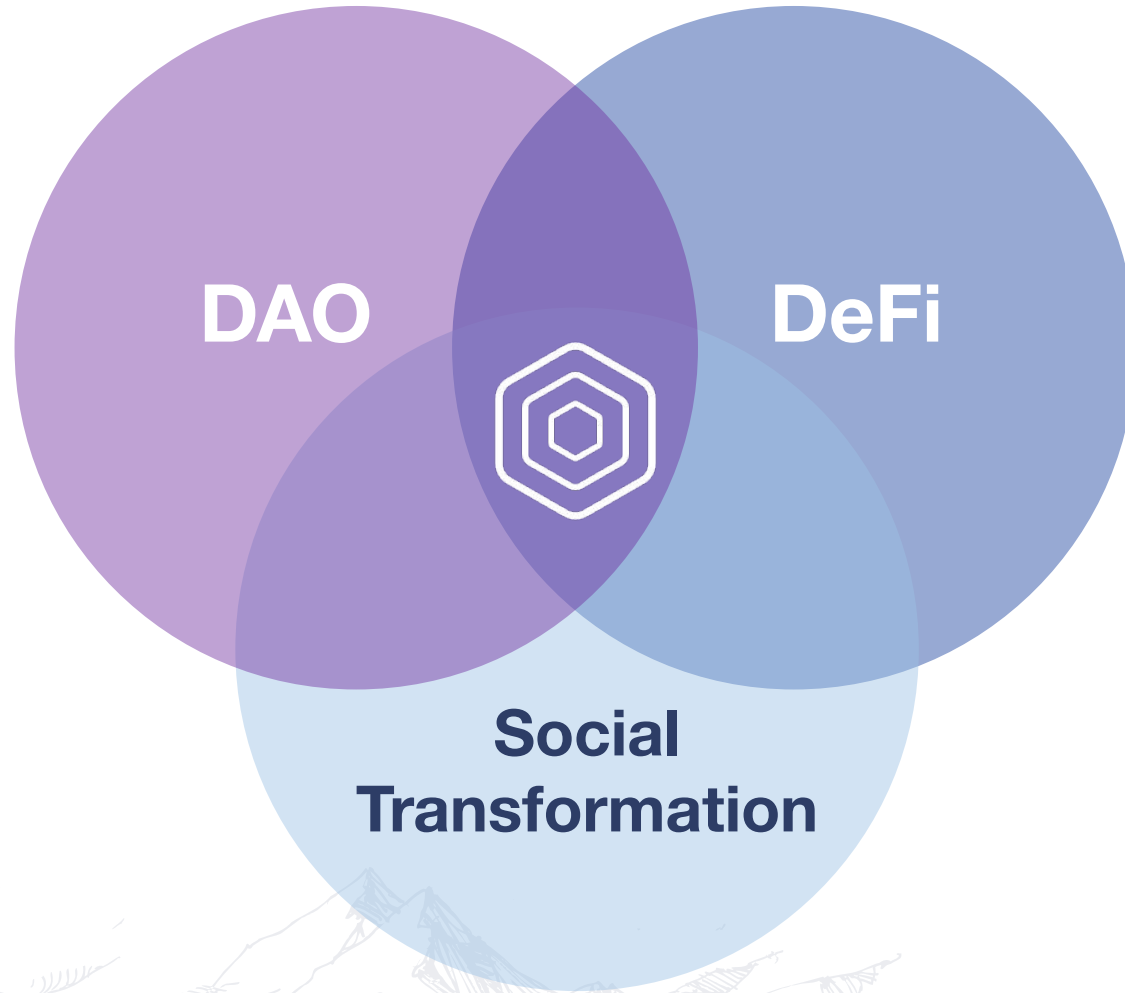
DAOstack

Cooperative is funded by members, mutual - **not**





Akropolis: our product



What's next

Our takeaways for DAO governance are below:

First-order effects

supportive social network >>> financial incentives: member support and regular contributions are essential to DAO survival and growth

Second-order effects:

meeting member's clearly outlined goals. If financial goals are not met on a consistent basis, a DAO will lose its membership base

Currently

governance ranges from supermajority-only decisions to de facto delegated governance. Simple governance structures tend to be more successful

Most successful AFOs have grown from 10-person village groups into banks or mutuals. Clearly articulated goals and mutual member support are major contributing factors to DAO growth from 10 members to 25,000+ members and multi-million-dollar treasuries accumulated by its member base.





Conclusion

Mass adoption of the technology will not happen until it is unnoticeable, abstracted away as a part of the solution addressing people's essential needs.

Majority of the population do not care about or have the knowledge to trade, take a synthetic position on an Apple stock or engage in the mental acrobatics of margin trading.

Let's get to the basis of the Maslow's pyramid and adapt it for the DeFi ecosystem. What "billions of users" care about is to be able to earn, save safely and grow their savings and reliably plan for future uncertainty.

