	Hi!				
	Welcome to the living document of the research agenda of our Institute!				
	Thank you for your contributions!				
	Feel free to:				
		- add anything you find interesting to the table 'Suggestions'			
		- check out our first take at the questions in the 'List' table			

You can add your questions below.
Since the set-up is still in an early stage feel free to join the Telegram Channel of the meetup if you want to get live updates from the progress.

https://t.me/joinchat/I1gMghGx1uXECCMhnB_faQ

#	Topic	Question	Name	Email
1		How do I avoid token volatility becoming the biggest objection to using a token network?	Tom Klein	tkklein@businessblock.co
2		When should I use an existing token vs creating my own?	Tom Klein	tkklein@businessblock.co
3		What variables are responsible for making a token design antifragile (i.e benefiting from stressors / volatility)?	Laurent Hardy	cryptoeconomics.hub@gmail.com
4		What classifiers might help identifying the best information a token should capture and carry in order to justify its existence?	Laurent Hardy	cryptoeconomics.hub@gmail.com
5		How to account for non-financial incentives?	Laurent Hardy	cryptoeconomics.hub@gmail.com

Token Economics for decentralizes autonomous systems that are steered by token governenance rules - These research questions aim to identify existing scientific methods that can be used to model and evaluate DAOs its agents, their behavior and token governance rules								
Topic	**Number**	**Question**	**Background, Context and Methods**	**Scientific Fields**	**Relevant People**	**Methods**	**Notes**	
General Structure of Model and its parameters	1	Which general structure captures the dynamics of an agent-based ecosystem best?	It is necessary to define a formalistic framework to set up a modeling space for ecosystems. It will consist of the generral properties of the network and also include agent-spaces, strategy spaces, utilitiy and preference functions. Maybe measure theory is appropriate?					
	2	How to formalize properties and functionalities of a network token in order to understand its behaviour?	A blockchain token can be used to fulfil several tasks and has to include different functionalities. Unlike regular money it can be used for much more than only unit of account, medium of exchange and store of value. IT can also steer behaviour towards a socially responsible outcome by pricing in extrenatilities, taxing unwanted effect and evening out information assymetries. The goal is to set up a formalistic mathematical framework to capture all the dynamics of the system.	aligned interests		intuitive beschreibung		
	3	Which existing models can we use?	Ramsey, Solow, DSGE?					
Agents	4	How to model agents behaviour within an ecosystem?	Agents will base their decision also on anticipated behaviour of their counterparts. This expectations need to be factored in. Game theory is suitable to model this kind of trade-offs					
	5	How to model the interactions between agents?	Interactions of agents call for a formal approach to allow for modeling them. Their decisions will be based on the information they can use, their preferences and their goal of action.				4_3 is subset	
	6	Which types of agents participate in a network?	A classification of participants is required in order to understand their possible behaviour better. It is necessary to define sets of possible actions and outcomes				how do these agent	
	7	Which underlying microeconomic functions can be used to model agents' behaviour?	Microeconomic fundamentals as indifferences, utilities, elasticies, ...have to be considered. Which else? Can the whole theory of microeconomics and its tools can be applied to ecosystem thinking?					
	8	Which macroeconomic functions can be used to describe the network?	Macroeconomic fundamentals as GDP (=total outcome), Government spending, consumption and investment, trade need to be considered. Which else? Is an ecosystem comparable to a country?					
	9	How to include indifference functions?	For some agents preferences are not so intuitevly to understand. Is it possible to capture the mechanics and simplify them into some variables? Are agents distinguishable and do we need very specific knowledge about their possible actions or is there a more general approach?				--> behavioral econo	
	10	How to include impatience?	Intertemproal substitution of utility allows for modeling of different time-preferences. Discount factors and total-lifetime-utility can be used to maximize agents' behaviour					
	11	How to categorize goods within a network?	Economic classifications of goods need to be modeled into the approach, see link	https://en.wikipedia.org/wiki/Goods			--> new classificatior	--> include in modeling of ecosystem in general
	12	How to account for externalities?	The Token (as in 1) has several functions and can capture taxation and subsidy elements. These effects can be priced in and affect agent's behaviour					
	13	How to measure utility?	Rational-behaving agents usually tend to maximize their own utility without much concern for others' benefits. Therefore a network utility function can be set up to globally adress this issue. How?					
	14	Which taxation mechanism is appropriate?	Different tax-theoretical approaches have been used to account for unwanted effects within an economy. Collect all, compare their characteristics and choose the best	--> google: environmental tax model	https://en.wikipedia.org/wi			
	15	How to include voting behaviour?	Since the centralised overseeing government ideally is to be replaced by an intrinsic function within the network, it is obligatory to include deomographic binding voting mechanisms. Is auction theory appropriate?					
	16	How to include expectations?	Agents base their economic decisions on their expectations about the future. These incertainities might be modeled by probability distributions					
	17	How to analyze network tendencies and steady states?	differental equations and operations research are suitable to understand global network tendencies. They can help to model different potential outcomes and steady states					
	18	How to change / allow for change of network settings / parameters?	a decentralized ecosystem once parametrized is very diffucult to adapt, since it requires the agreement of all participating parties. How to solve this issue?					
		How to map governance mechanisms	is governance a function of the token or a function of the network? is in internally implemented in the utilities of the agents or is it an external factor counted in afterwards					
	19							
	19a	How to map incentive mechanisms?	Given that agents will behave rationally and utility-maximizing, they need to be incentived somehow to make steering of behaviour possible					
	20	How to map consensus?	Is consensus to be mapped after all or is it simply an agreement made between individuals given that they will behave self-maximizing?					
	21	How to capture the value of a network?	How valuable is a network and to whom? Is it comparable within different agent-types or has everyone his own perspective? Is it possible to assign a social-utility to a network at all?					
	22	How to control growth of a network / network value?	From a dynamic-macroeconomic perspective, is it possible to steer the growth of a network? Which underlying parameters are to be used to do so?					
	23	Are agents distinguishable?	Is there a general class of agents with different properties or are there different classes of agents? how abstract can an agent be defined?					
	24	Which kind of agents are relevant at which moment?	Some stakeholders will play different roles for network evolution. The time-dimension of their involvement needs to be taken account of					
	25	How important are different types of agents with regard to growth?	2-dimensional impact of agents on the network: they contribute to growth and also to the increase of value					
	26	What is the contribution of different agents to network growth?						
	27	Which distribution of agents is beneficial?	predataor-prey perspective: agents interact and should not outnumber others in order to guarantee sustainable systems					
		How to set the correct proportions of different agents?						
	28							
	28	Which random components / shocks are to be included?	Every network is subject to unexpected changes. Probability distributions can be used to factor these in, however the impacts are often not so easy to model					
	29	Wie funktioniert geldschöpfung?						
	30	Wo findet die Wertschöpfung statt?	Wie verbintet man Wertschöpfung mit Geldschöpfung? Wenn Wert entsteht --> entsteht auch ei	Welche Theorien setzen sich mit Geldschöfung und Wertschöpfung				
	-			Der Wert der Sicherheit der Transaktionen --> Bitcoins Wertschöpfung				
	31	Token (System) Valuation						