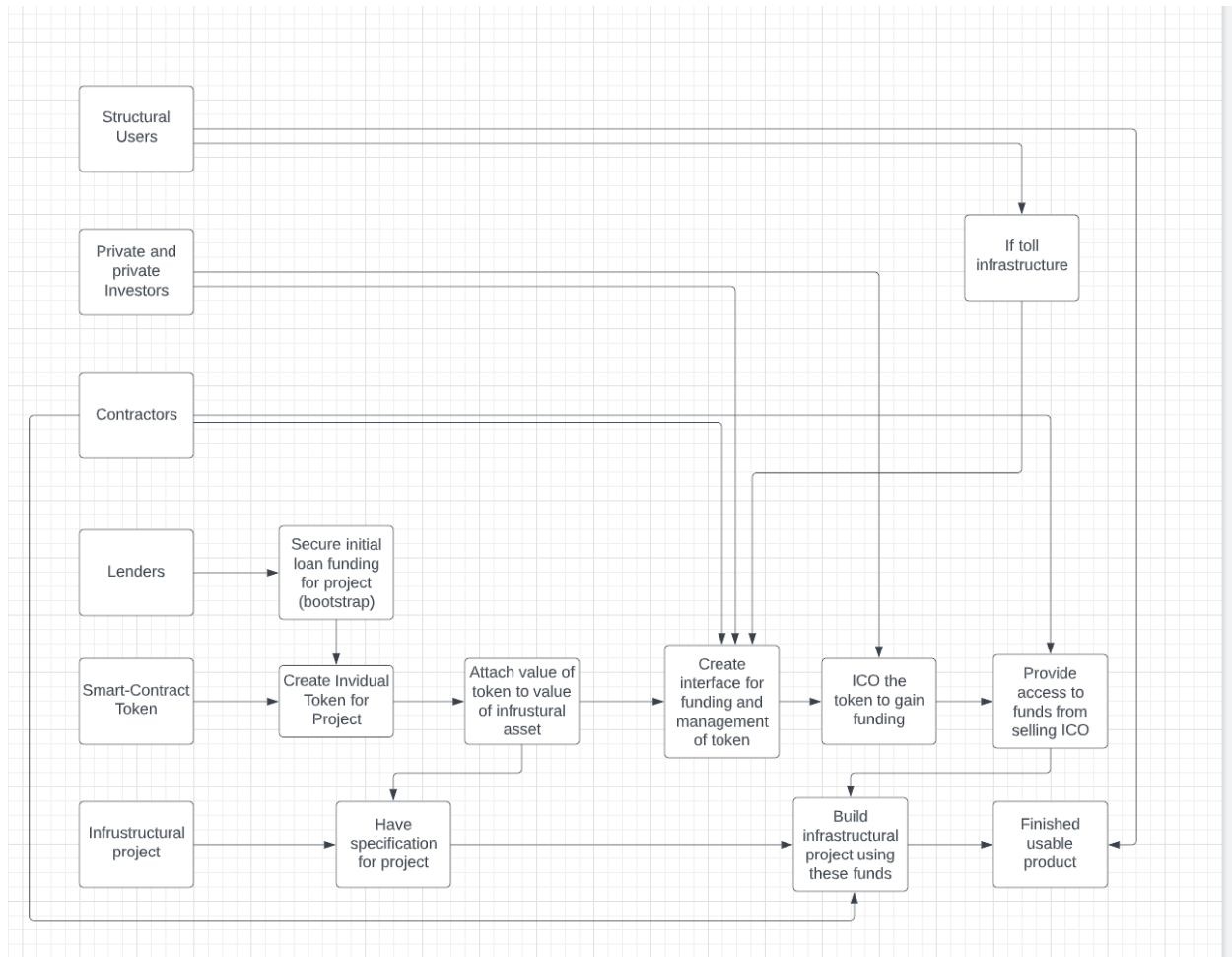| User	How is the process done today?	How will the process be done with crypto?
Investors:	Give funding directly to the contracting company in order to allow the project to be built. -Hard to collect all necessary capital -Can't gain capital from smaller investors (very hard to) - Procurement process have high transaction costs. - Contract uncertainties (Long-term contracts might need modifications) https://www.pppinindia.gov.in/toolkit/urban-transport/module1-oopi-infra-wup.php?links=oopii1b	- Allows anyone to invest in the infrastructure without all the hassle of contracts. - Includes individuals, small, & large corporations can invest seamlessly. Similar corp using ethereum network to fractionalize physical assets: https://fasset.com/about/ https://siltawhitepaper.s3.amazonaws.com/Silta_Whitepaper.pdf
Contractors	Gain funding from one or possibly a couple of sources directly 1.Identify priority project 2.Screen as ppp 3.structure ppp /Appraise ppp 4.Draft ppp contract 5.Manage ppp transaction 6.Manage ppp contract https://www.mckinsey.com/capabilities/risk-and-resilience/our-insights/a-smarter-way-to-think-about-public-private-partnerships https://ppp.worldbank.org/public-private-partnership/ppp-process#:~:text=A%20PPP%20is%20one%20way,planning%20and%20project%20selection%20process. –(add specifics to PPP process/ contracting process)	Gain financing from many sources. Allows for money to be withdrawn and moved quickly.
Daily Users	Use infrastructure and possibly pay tolls, have no	Toll can be taken immediately from crypto e-wallet

	stake in infrastructure –add disadvantages: 1. Have to stop and pay a toll - time wasted 2. Have to use easy pass 3. Violation if you do not pay toll 4. Cost of toll booth operators 5. The cost to build the toll booths 6. The cost of future maintenance of the toll facilities and technology updates 7. The funds may not specifically be applied to the infrastructure, the government can use the funds for other areas which is not ideal https://en.wikipedia.org/wiki/Toll_road	Can use an automatic radio transponder to connect with a roadside toll reader device which can then communicate with the road's toll reader and take crypto out of the wallet. This process will be more secure A smart contract can define the terms between the party, allowing for easily enforceable rules and penalties Sending and receiving data would be much faster then stopping at a toll road. Data would be more secure due to the assurance that no party has tampered with the data. https://statetechmagazine.com/article/2019/12/how-blockchain-can-help-toll-collection-systems https://www.pymnts.com/blockchain/bitcoin/2020/bitcoin-daily-south-korea-use-blockchain-collect-highway-tolls-polish-financial-watchdog-warns-fake-crypto-scams/

Questions:
–add more specifics for PPP and flowchart for users

–how do investors make their money back? And how does crypto change this?
Using crypto as a middle man will allow the flow of money to be more efficient which will help speed up projects. It depends on the project say if the project is a park investors would not get there money back but depending on the amount invested they will receive a large plack showcasing their kindness. But if the project is something like a bridge then a toll can be implemented and slowly would pay itself off.

Governments
- Access to private sector loan pools
- Avoid project delays by eliminating the funding risk
- Streamlined lending arrangements
- Good value for money

Project Contractors (PPP Process)
- Simpler and faster loan arrangement process
- Significantly lower transaction costs
- Competitive interest rates
- Access to additional source of capital in large projects

DeFi Ecosystem (End Users)
- Access to real assets in infrastructure projects
- Easy access to long-term investment opportunities
  - ICO Crown Funding Opportunities
- Good return on capital and lower risk profile
  - Backed on the physical infrastructure, valuation on usage
- Support for the social and environmental good

Next week's goals-
See how we can implement blockchain functionality with the current process of PPP.
Reflect the current state of PPP on a testnet then build on top of it.
Add new features enabled on blockchain.
Send document of project flow and details.

Meet first week of classes Winter Term!!!