

Fig. 1: A flow chart to determine whether a blockchain is the appropriate technical solution to solve a problem (Table II should be considered in the decision making process as well). Writers refer to entities with write access to the database/blockchain, i.e. in a blockchain setting, a writer corresponds to a consensus participant. If a trusted third party (TTP) is available that is not always online, this can be used to establish a known group of writers, i.e. the TTP can function as a certificate authority in such a setting. Public and private permissioned blockchains differ in that a public blockchain allows anyone to read the contents of the chain and thus verify the validity of the stored data, while a private blockchain only allows a limited number of participants to read the chain. Note that for any blockchain based solution it is possible to make use of cryptographic primitives in order to hide privacy-relevant content.