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# designing a reward system for citizen participation by means of blockchain technology

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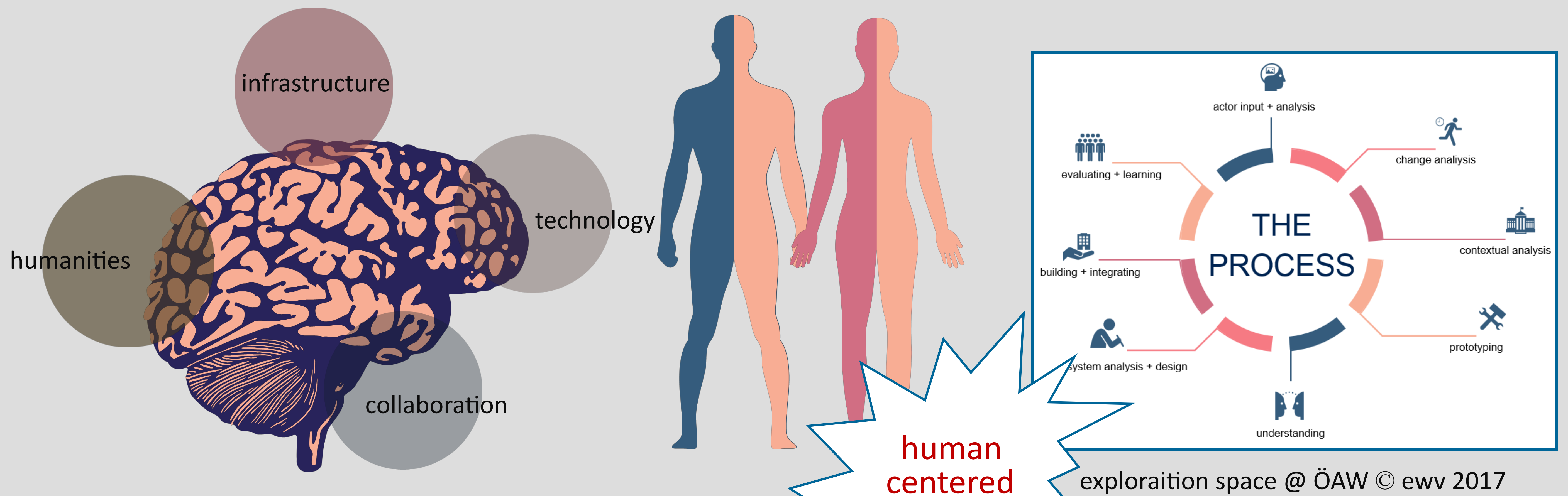
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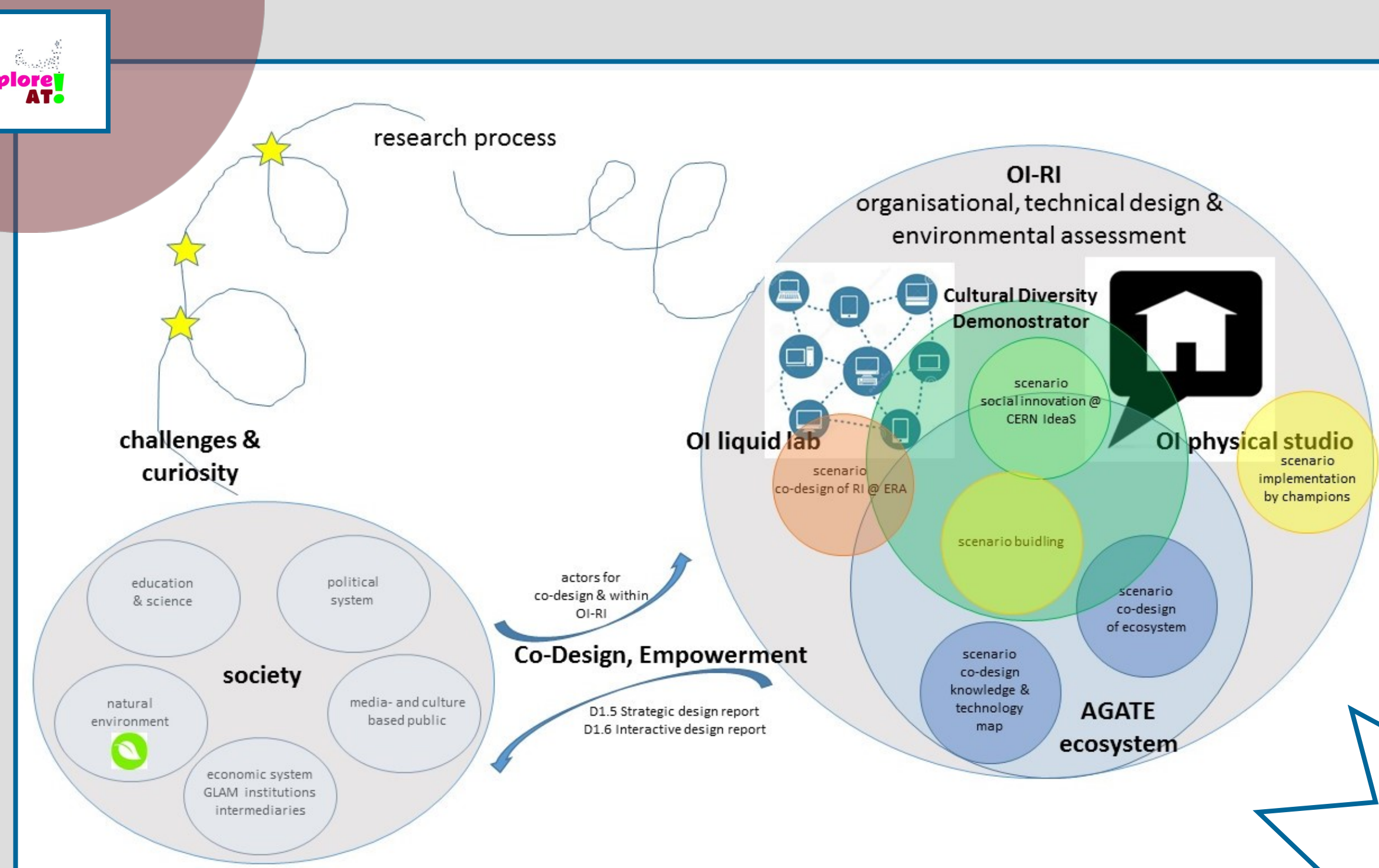


# designing a reward system for citizen participation by means of **blockchain technology**



## open innovation research infrastructure

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design thinking  
interaction design  
experimentation  
agile organisations

open science  
sharing economy

## blockchain principles

most simply, a blockchain is a **distributed** and **ever-expanding** database

most commonly, blockchains have been used as the basis for currency (i.e. *Bitcoin*, *Ethereum*)

cryptocurrency and blockchains are attractive because it is **decentralised**, **trustless**, and **resistant to tampering/censorship**

## blockchain vs centralized databases

disintermediation & robustness:  
advantage blockchains

confidentiality, performance:  
advantage regular databases

post-dictionary

**ubiquitous, embedded  
cooperating with humans and machines**

multi-dimensional:  
co-designed,  
co-created, collaborative  
multi-cultural  
multi-lingual  
interactive, dynamic  
open  
/.../

**a prototype:  
wugsy**



### basics

via a web interface, actors are presented with images, word clouds, and/or natural language texts

actors are variously asked to score the accuracy of texts and word clouds, or to write stories about an image

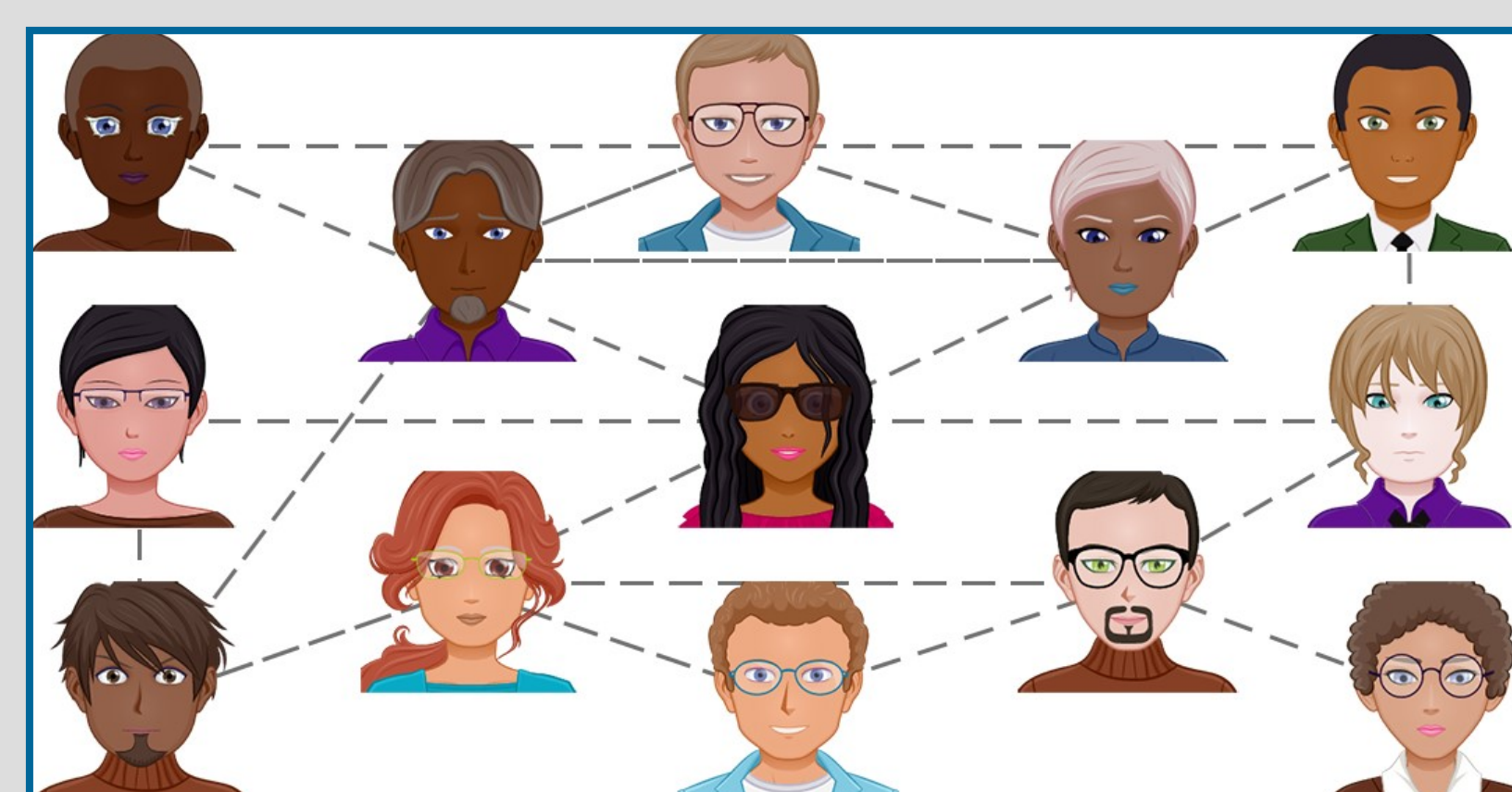
answer quality can be determined by consensus, and actors rewarded through an ERC20 token

### example

actors are incentivised to provide profile data (demographic details, etc.)

since each language game is linked to the actor, it is possible to extract language from the blockchain based on a given metadata feature

example: query the database for language use by gender and location; construct a hyperlinked post-dictionary



self-organisation

## network thinking + we-culture

according to peter spiegel (2015)  
social innovation is next wave of revolution  
connectivity :  
decentralisation and interdependence  
in the center: we-q (we-qualities) rather than i-q

## decentralisation ... matter of trust

towards „smart social contracts“  
following the concept of decentralised collaborative organisation  
c.f. primavera de filippi @ blackfeed  
transfer into **knowledge workflows**

### ethical considerations

permanent storage of data from users with little understanding of the system

since the data is open, users cannot consent to *any imaginable future use*

the more personal the data, the more valuable/expensive it is for the system...

once started, can the system be stopped –  
and if not: **what would that mean?**

