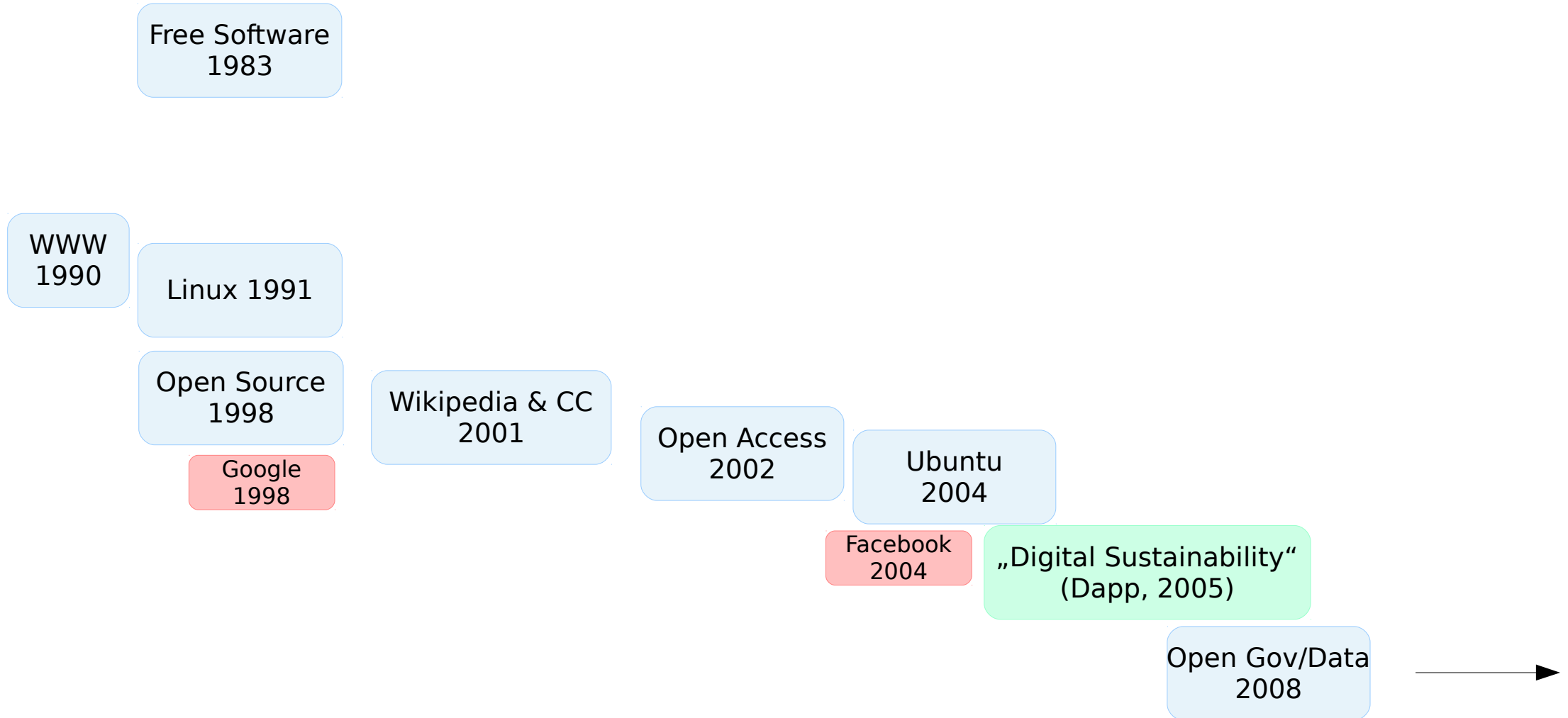




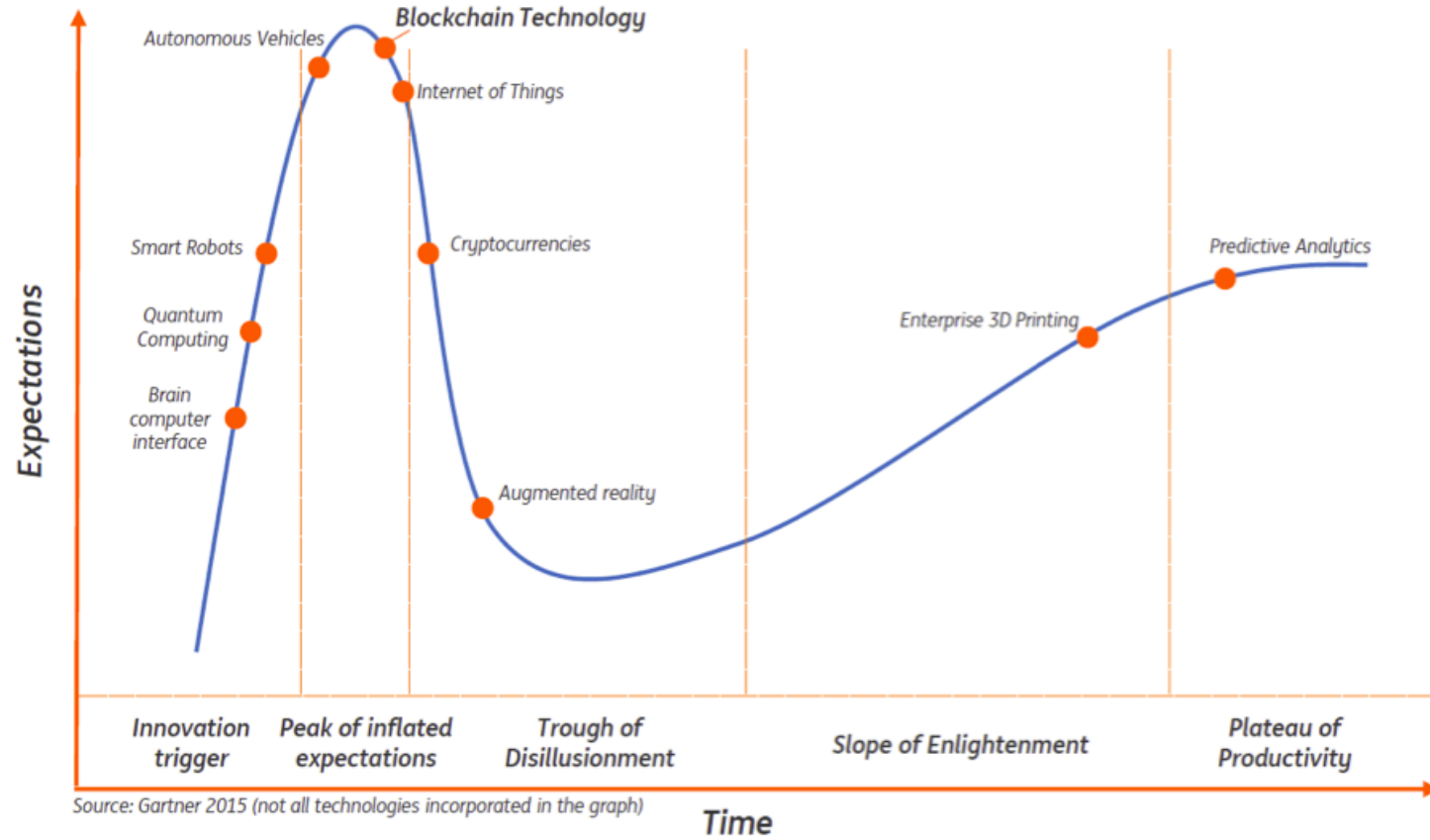
Mit Blockchain, Offenheit & Digitaler Nachhaltigkeit in das Zeitalter der Dezentralisierung

Dr. Marcus M. Dapp, ETH Zurich

A bit of „Open“ history



Hype Cycle for Emerging Technologies, Gartner 2015





BORING

BLOCKCHAIN PROJECT ECOSYSTEM

CURRENCIES

BASE LAYER PROTOCOLS

PAYMENTS

DEVELOPER TOOLS

SMART CONTRACTS

SCALING

ORACLES

SECURITY

LEGAL

INTEROPERABILITY

PRIVACY

DAGs

SOVEREIGNTY

USER-CONTROLLED

INTERNET BLOCKSTACK

GOVERNANCE

VPN

COMMUNICATION

IDENTITY

SECURITY

STABLECOINS

FINTECH

TRADING/DEX

INSURANCE

ETHERISC

LENDING

ETHLend

FUNDS/INVESTMENT MANAGEMENT

VALUE EXCHANGE

CONTENT MONETIZATION

FILE STORAGE

COMPUTATION

MESH NETWORKING

ENERGY

GRID

VIDEO

FUNGIBLE

NON-FUNGIBLE

SHARED DATA

INTERNET OF THINGS

SUPPLY CHAIN/LOGISTICS

ATTRIBUTION

REPUTATION

CONTENT CURATION

CURATION MARKETS

AUTHENTICITY

DATA

TICKETING

TicketChain

OTHER

PREDICTION MARKETS

VIRTUAL REALITY

STAKING POOLS

GAMBLING

GAMING/ ESPORTS

compound
@JOSH_NUSSBAUM

QUESTION

What shall we (cities) do with
all that exciting technology?

<https://pollev.com/md044>

Global



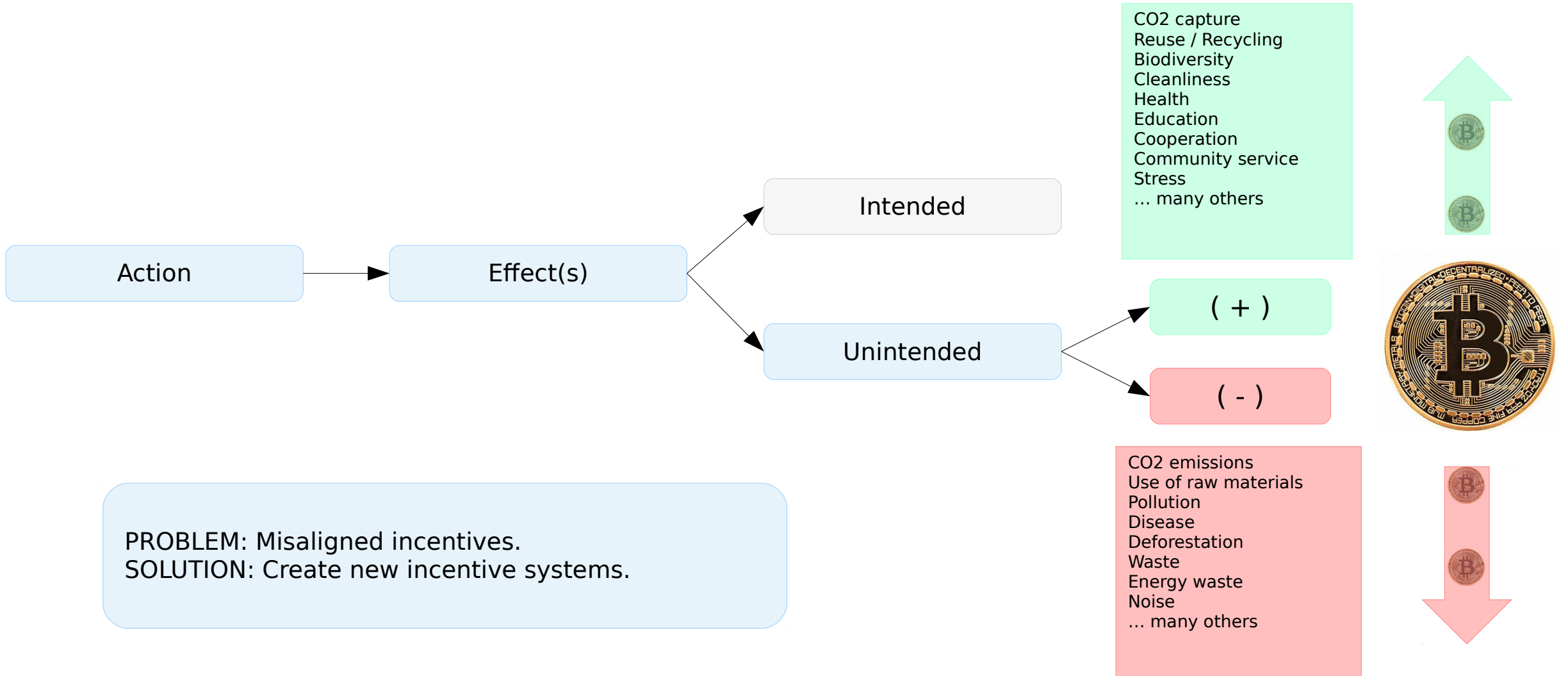
Challenges



±
UNTIL DEBT
TEAR US APART

WRONG INCENTIVES CREATE
SYSTEMATIC MARKET FAILURES

Effects, Intention & Incentives





**ALIGN INCENTIVES TO
PROMOTE SUSTAINABILITY**

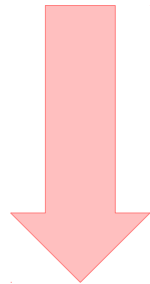
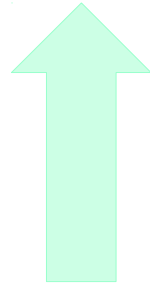
How to create your own incentive system

CO2 capture
Reuse / Recycling
Biodiversity
Cleanliness
Health
Education
Cooperation
Community service
Stress
... many others

(+)

(-)

CO2 emissions
Use of raw materials
Pollution
Disease
Deforestation
Waste
Energy waste
Noise
... many others



STEP 1

For which **positive effects** should one **receive money (tokens)**?

STEP 2

What do we offer so that they can **spend** the tokens again?



**COLLECT EXTERNALITY DATA, TRANSFORM
INTO CRYPTO AND MAKE IT TRADEABLE**

“Finance 4.0” Design



K L E R O S



oraclize



Dec. Trading

Cryptoeconomic incentive system

Dyn. Pricing

Tokenizing

Proving

Storing

Sensing

streamr





FuturICT 2.0

Sustainable circular economy based on a multi-dimensional, multi-layered economic system to achieve eco-social goals collaboratively

Marcus M. Dapp (mdapp@ethz.ch)
@futurICT2 | www.futurICT2.eu