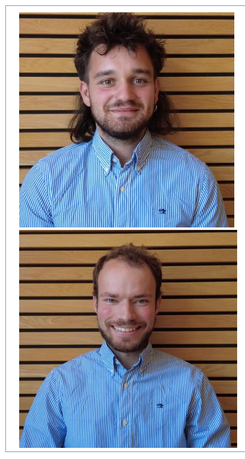

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Social Tipping Dynamics

and our possible path to a decarbonised society

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Introduction

Based on “The global risk report 2022 (17th Edition)” the risk of failure to deal with climate change is both the most probable as well as the most dangerous risk for humanity to maintain. Equally probable but less dangerous are the loss of biodiversity, collapsing ecosystems, man made environmental disasters and extreme weather events (McLennan & Group, 2022) .

- Our impact on the environment is extremely dangerous also for us humans
- Still the emissions of CO2 are increasing year by year (IPCC 2022)
- It takes time for people to change lifestyle
- Human behavioural changes can be rapid

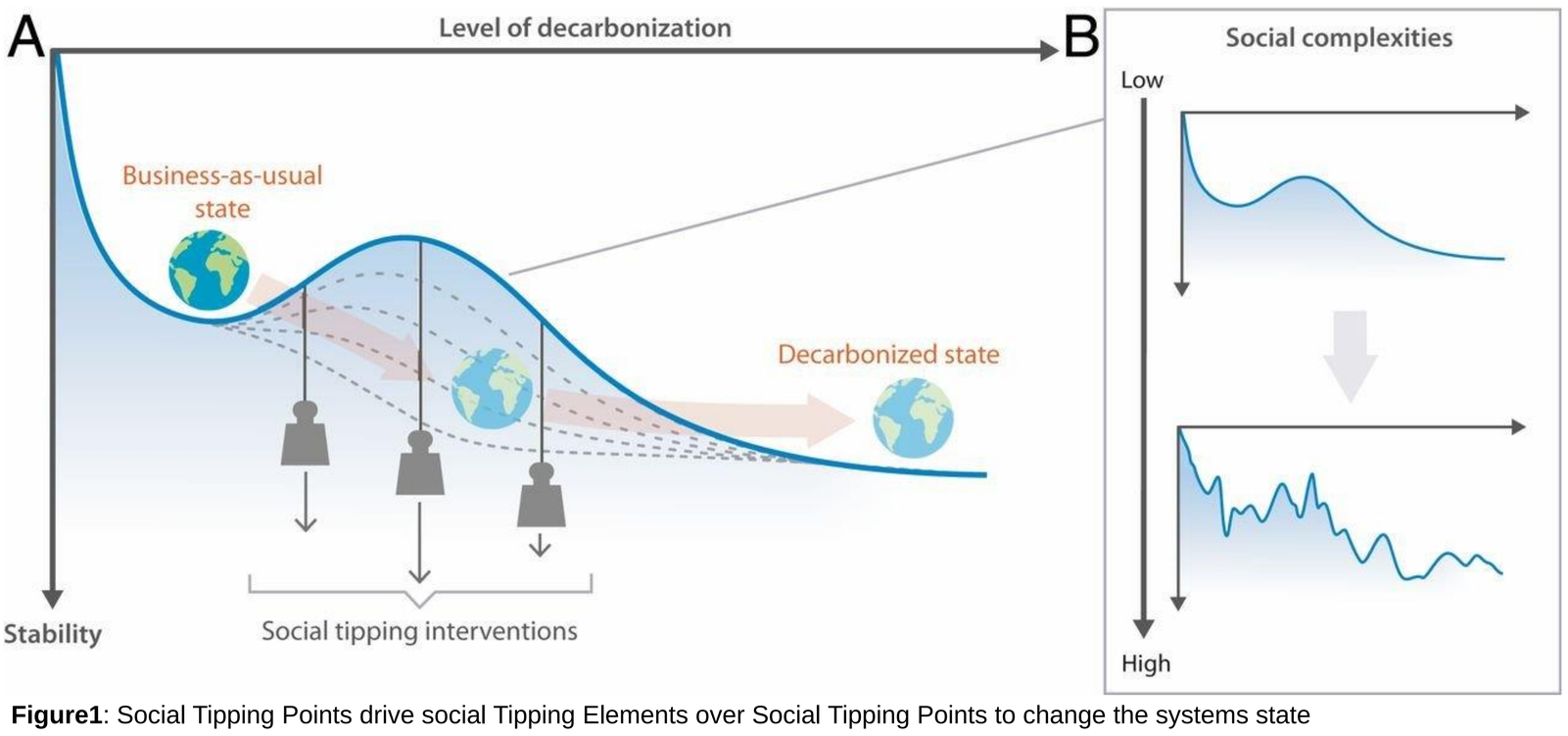

Figure1: Social Tipping Points drive social Tipping Elements over Social Tipping Points to change the systems state

For the needed changes tipping Interventions (STI) are necessary. Once we overcome certain thresholds (STP) we stay in this new state of the socioeconomic system (STE).

Social Tipping Interventions (STIs)

- Lead to structural reorganization in their STEs
- Activate contagious processes rapidly spreading
- Multiple STIs enhance each other

Social Tipping Points (STPs)

- Driven by self-reinforcing positive-feedback mechanisms
- Exceeding leads to a change in the social system
- Points at which small quantitative change triggers a non-linear change

Social Tipping Elements (STEs)

- Subdomains of the socioeconomic system
- Require disruptive change
- Changes in the STE can lead to large changes at the macroscopic level

Conclusion

Tipping points in combination with climate change are often considered as something bad that we should not reach. This is true for tipping points in our climate system.

Paradoxically Social Tipping Points (STPs) are points that we have to reach in order not to pass environmental tipping points.

Social Tipping Interventions (STIs) are needed to shift Social Tipping Elements (STEs) over a certain threshold and to pass the STPs.

Once exceeded positive feedbacks will keep the system in the new state. This poster illustrates 8 STEs and explains STIs for each of them to reach STPs.

Social elements that lead to exponential change

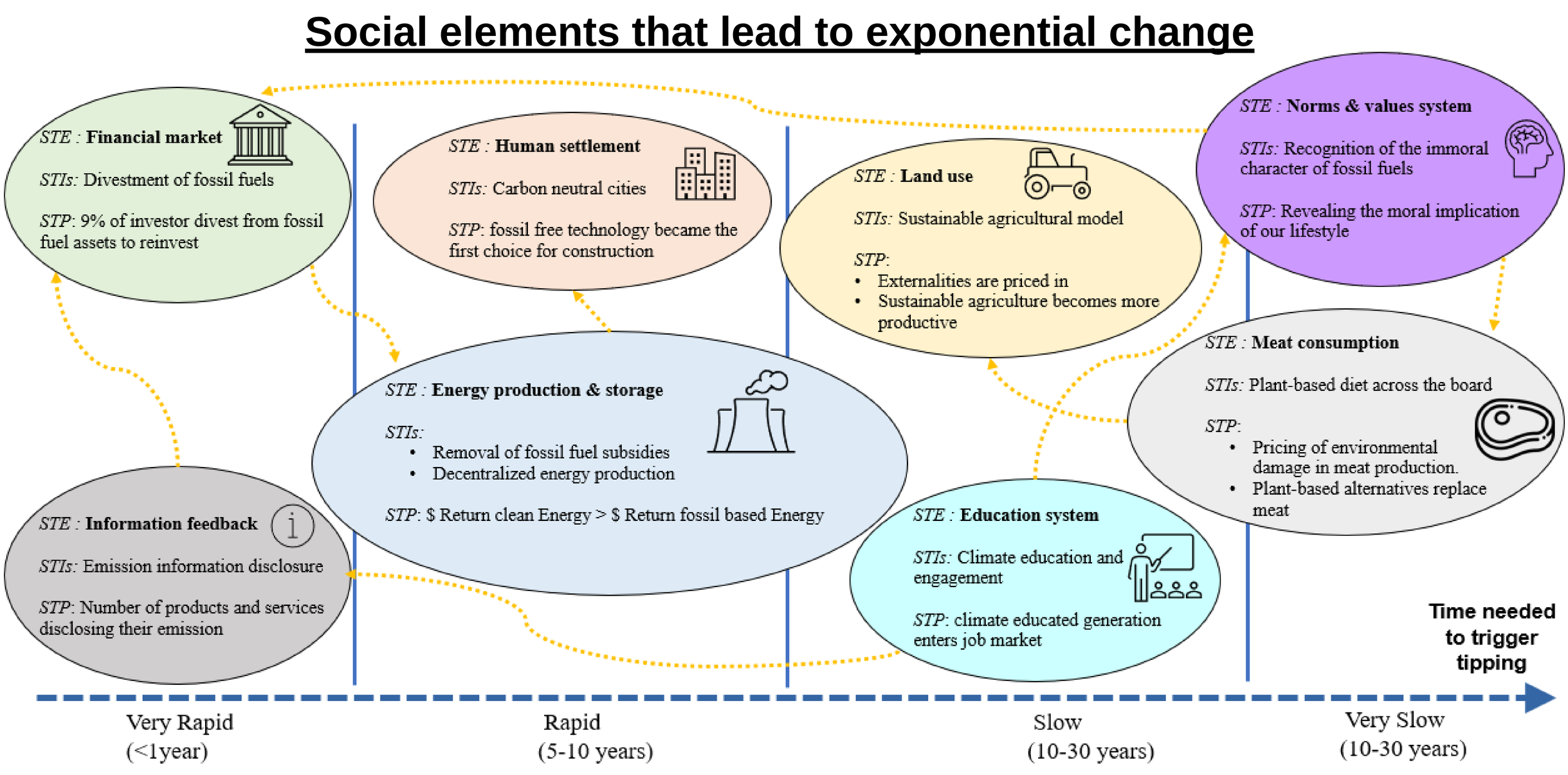

Figure2: Connections between STEs in combination with their STIs and STPs on a time axis

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