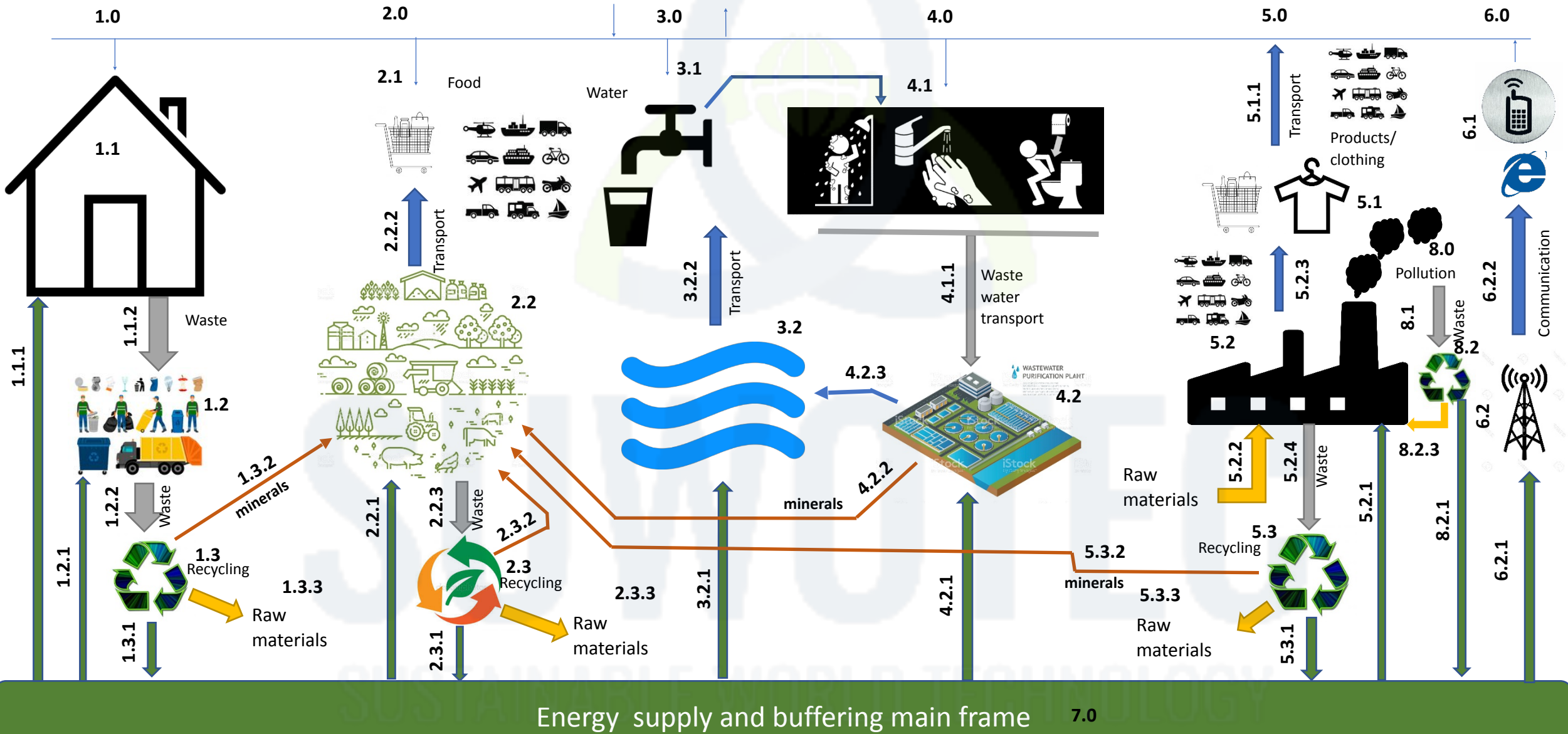


Circular cycles



Circular cycles

- 1.0 Housing / Living
- 1.1.1 Required energy
- 1.1.2 Product / waste
- 1.2 Waste/ product collection and separation
- 1.2.1 Required energy
- 1.2.2 transport to various recycling units
- **1.3 Various recycling technologies**
- 1.3.1 Surplus energy delivered to energy main frame7.
- 1.3.2 Re Use Minerals
- 1.3.3 Raw materials for re use



- 2.0 Food chain
- 2.1 Required amount of Food
- 2.2 Agriculture and livestock for Food production
- 2.2.1 Required energy for production
- **2.2.2 Food storage and transport**
- 2.2.3 production waste
- 2.3 Food production waste re cycle (**Various technologies**)
- 2.3.1 Surplus energy delivered to energy main frame7
- 2.3.2 Re use minerals
- 2.3.3 Raw material for re use



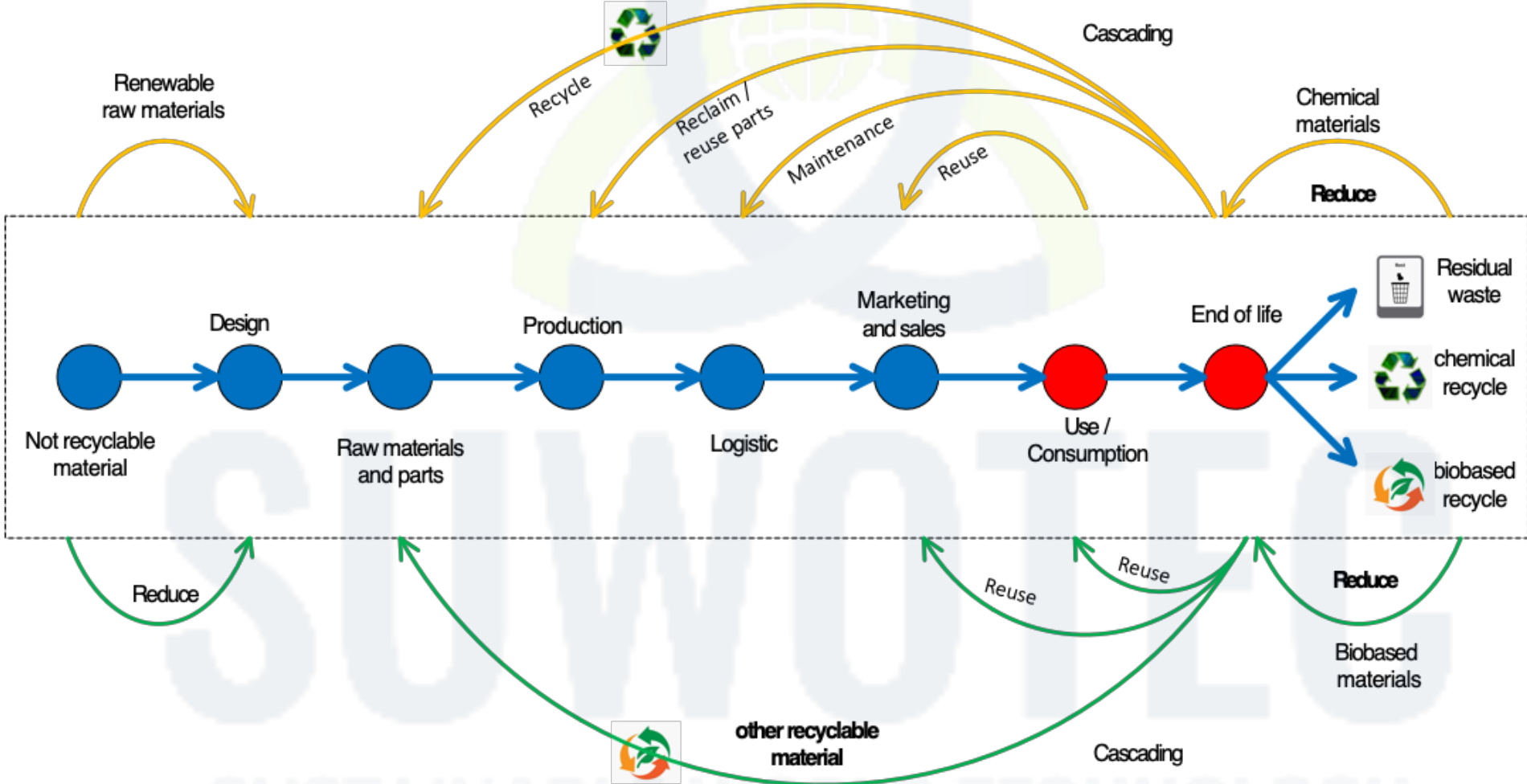
- 3.0 Water
- 3.1 Required amount of water for drinking, food preparation, sanitation
- 3.2 Water production company
- 3.2.1 Required amount of Energy
- 3.2.2 water transport
- 4.0 cleaning
- 4.1 Wash and cleaning (household)
- 4.1.1 Contaminated water transport
- 4.2 Water cleaning plant (**various Technologies**)
- 4.2.1 Required amount of Energy
- 4.2.2 Re use off Minerals
- 4.2.3 Re use clean water
- 8.0 Exhaust cleaning
- **8.1 Retract and filter exhaust fumes**
- **8.2 Recycle by CO₂→2 Energy→2 product**
- **8.2 Recycle NO_x →N₂→CO₂**
- 8.2.1 Electricity
- 8.2.1 Products and material Includes NO_x



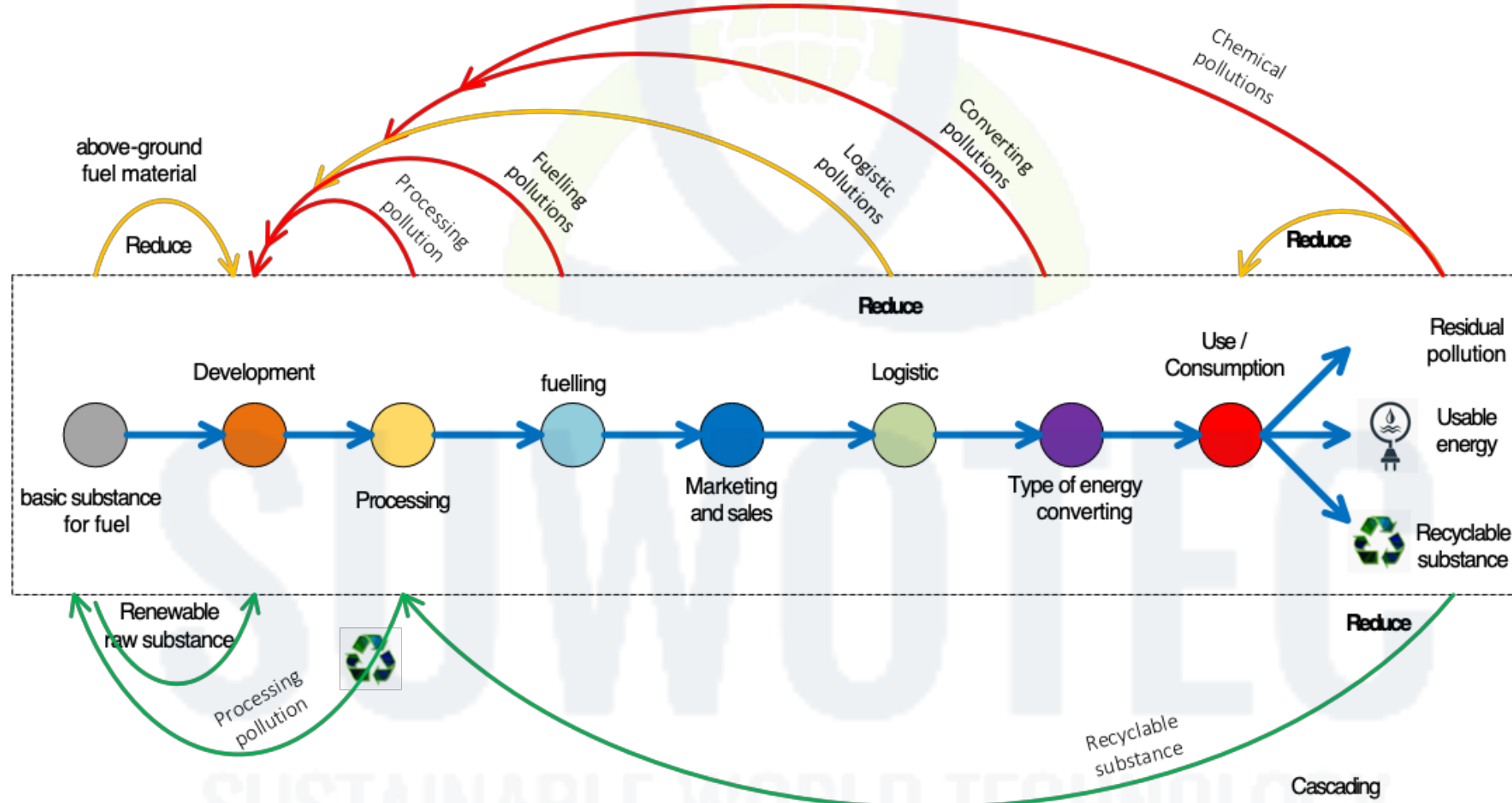
- 5.0 production consumer goods and products
- 5.1 required amount of consumer products
- **5.1.1 Transport off goods**
- 5.2 Production plants
- 5.2.1 required amount off energy
- 5.2.2 required amount off raw products product resource
- **5.2.3 transport produced goods**
- 5.2.4 Waste production
- **5.3 Various recycling technologies**
- 5.3.1 Surplus energy delivered to energy main frame7.
- 5.3.2 Re use Minerals
- 5.3.3 re use raw material
- **6.0 communication and data**
- 6.1 Various types of communications
- 6.2 Communication servers and transmitters
- 6.2.1 Required amount of energy
- 6.2.2 communication data
- **7.0 Energy supply, storage and buffering main frame**



New Product design Method while maintaining the Value Chain



New Process design method for Energy Converting in circular systems



Technologies for circular systems

- 1.3 Chemical-based materials recycles systems

- Pyrolysis
- **Controlled Clean Pyrolysis** TM



- 2.3 Bio-based materials recycle systems

- Anaerobic digester
- Industrial digester
- **Controlled Thermal Pressure reactor** TM



- 3.2 Water cleaning systems

- Basins
- Electrolyze
- **Full Flow water Cleaning** TM



- 7.0 Energy systems

- **7.1 Electric Energy Bio Based Battery** TM
- **7.2 Liquid to energy Hybrid Fuel Cell** TM
- **7.3 Gas to energy Hybrid Fuel Cell** TM
- **8.2 CO2 to Energy CO2→2 Energy→2 product** TM
- **8.2 NOX→N2→CO2** TM

