

Mapping the possible CE futures through scenario exploration



Authored by WP3

WP3 - D3.5: Evaluation of requirements for economic efficiency of CE under future growth scenarios.

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First, a small reflection...
When have these photos been taken?



Futurama

1939 New York World's Fair

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The imagination of the future is performative. The way we imagine the future shapes how we may build this future.

How will we build the future of the Circular Economy?.

* Kanaleneiland, Utrecht, the Netherlands (started building in 1955).



Who is imagining the future?



What are Futures Studies?

- The future” cannot be “predicted” because “the future” does not exist.
- The future is imagined, shared, and then executed collectively.
- We shape our tools and thereafter our tools shape us.

What are Futures Studies?

Understanding and applying the theories and methods of futures studies enables individuals and groups to anticipate the futures more usefully, and to shape it appreciably more to their own preferences.

- “The future” **cannot be “predicted**, “but “preferred futures” can and should be envisioned, invented, implemented, continuously evaluated, revised, and re-envisioned.
- Thus the major task of futures studies is to **facilitate** individuals and groups in **formulating, implementing, and re-envisioning their preferred futures**.
- To be useful, futures studies needs to **precede, and then be linked to strategic planning**, and thence to administration.

Our aim

- Comprehensive catalogue of the circular futures.
- Define what future scenarios are socially desirable
- Understand which conceptualizations of economic performance are relevant to assess the outcomes of the different futures

Methods

- Literature review on different approaches to CE future scenarios
- Selection of suitable approaches (relevant dimensions/axes)
(Bauwens et al, 2020; Fauré et al, 2019; Svenfelt et al, 2019; Calisto Friant et al, 2019)
- Group discussion (proposal for new dimensions/axes)

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Future scenarios of the CE

Classification framework (Bauwens et al, 2020)

2x2 matrix classification based on 2 axes:

- Nature of the innovations: **low-tech** / **high-tech**
- Political governance: **decentralized** / **centralized**

4 future scenarios

Future scenarios of the CE

Circular modernism (**high-tech** + **centralized**)



Based on Bauwens et al (2020)

Future scenarios of the CE

Planned circularity (**low-tech** + **centralized**) -> Fortress CE



Based on Bauwens et al (2020) and Calisto Friant et al (2020)

Future scenarios of the CE

Peer-to-peer circularity (**high-tech** + **decentralized**)



Based on Bauwens et al (2020)

Future scenarios of the CE

Bottom-up sufficiency (**low-tech** + **decentralized**)



Based on Bauwens et al (2020)

Interesting departure point to imagine future scenarios...



however...

- Centralized political governance \neq centralized/large-scale production
- Monopolies/oligopolies can lead to authoritarian decision making
- State-planned CE \neq “low-tech” innovations (e.g. China)
- Technological innovations that lead to de-centralization can be co-opted by large firms
- Uncoordinated P2P technologies can lead to rebound effects

Underlying **relations of production** remain unchallenged in all scenarios

Therefore...

Other dimensions need to be incorporated into the analysis:

- Scale of production (**small/local** – **large/global**)
- Access/Ownership of final goods (**collective** - **individual/private**)
- Property of means of production (**collective** - **private**)

New proposed Future scenarios of the CE

D3.5 Futures (after WP3 group discussions)	Conceptual axes				
	Nature of innovations	Political Governance	Scale of Production	Access/ Ownership of Goods	Property of Means of Production
MNE-led Modernist Circularity	High-tech (radical)	Centralized	Large/Global	Individual/ Private	Private
Welfare-state Modernist Circularity	High-tech (radical)	Centralized	Large/Global	Individual/ Mixed	Private
Landlord Fortress Circularity	High-tech (incremental)	Centralized	Large/Global	Collective/ Private	Private
State-led Modernist Circularity	High-tech (incremental)	Centralized	Large/Global	Collective	Collective
Platform Capitalism Circularity	High-tech (radical)	Decentralized	Local > Global	Collective/ Private	Private
Open-access P2P Circularity	High-tech (radical)	Decentralized	Local > Global	Collective	Collective
Autarkic Fortress Circularity	Low-tech	Centralized	Large/Global	Collective	Collective
Convivial Eco-socialism	Low-tech	Decentralized	Small/Local	Collective	Collective
Free-market Insufficiency	Low-tech	Decentralized	Small/Local	Individual/ Private	Private

Modernist CE sub-scenarios



MNE-led modernist circularity

- Business-as-usual Circular Modernism
- Large companies lead the transition to CE
- State only sets regulations and incentives
- Large scale / GVC
- Individual access / private ownership of goods
- Market-based and profit-driven

Welfare-state modernist circularity

- Business-as-usual with increased state presence
- Circular public procurement
- Large private companies compete for public concessions
- Public investment in high-tech innovations
- State promotion of collaborative consumption
- Profit-driven + strong income redistribution mechanisms

State-led modernist circularity

- State leads transition through strong regulations, public procurement and large state-owned companies
- Large scale + industrial parks (industrial symbiosis)
- Collective ownership of strategic resources and goods
- Private presence in non-strategic sectors
- Welfare-driven + profit is a secondary goal

Fortress CE sub-scenarios



Autarkic Fortress circularity

- State-led and protectionist
- CE based on coercion and rationing
- Large scale + focus on local market
- Private oligopolies supervised by public authorities
- Welfare-driven (within national borders)
- Free-market in non strategic sectors

Landlord Fortress circularity

- Firm-led (multinational monopolies/oligopolies)
- Extended firm property of resources and final goods
- Global scale (beyond state borders/public control)
- Scarce public control on firms activities
- Profit-driven + commodification of social relations
- No mechanisms to guarantee social justice

Peer-to-peer CE sub-scenarios



Open-access P2P circularity

- Shift from ownership of final goods to collaboration
- Shift from consumption to prosumption
- Decentralized productive systems and consumer cooperatives supported by P2P technology
- Welfare-driven + uncoordinated -> no mechanisms to avoid rebound-effects or to guarantee social justice

Platform Capitalism circularity

- Decentralized private platforms
- Digital innovations may be co-opted by large companies
- From local/regional to large/global scale
- Scarce public control on firms activities
- Profit-driven + commodification of social relations and no mechanisms to guarantee social justice

Bottom-up sufficiency CE sub-scenarios



Convivial Eco-Socialism

- General economic/productive downscaling
- Community-owned local productive systems and local consumer cooperatives based on traditional knowledge
- Collectively owned strategic resources
- De-growth results from public consensus
- Welfare-driven + sufficiency and social justice supported on local cooperation networks

Free-market Insufficiency

- Firm-led + rent-seeking
- Private property of resources and final goods
- Local scale (local or foreign capital)
- Non-existent public control on firms activities
- De-growth results from dominance and exploitation
- Profit-driven + uncoordinated -> no mechanisms to guarantee social justice

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Thank you!

- Please contribute filling out the online survey
- Questions? Comments?

WP3 – D3.5

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