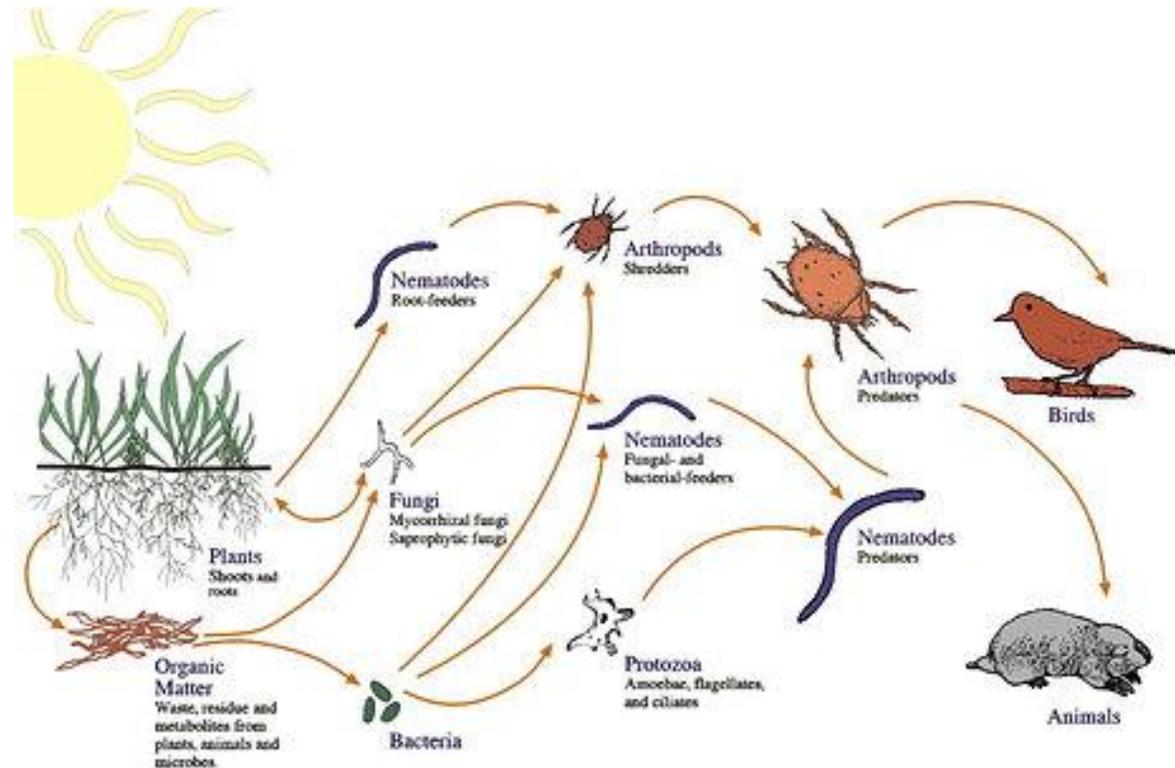


Envisioning

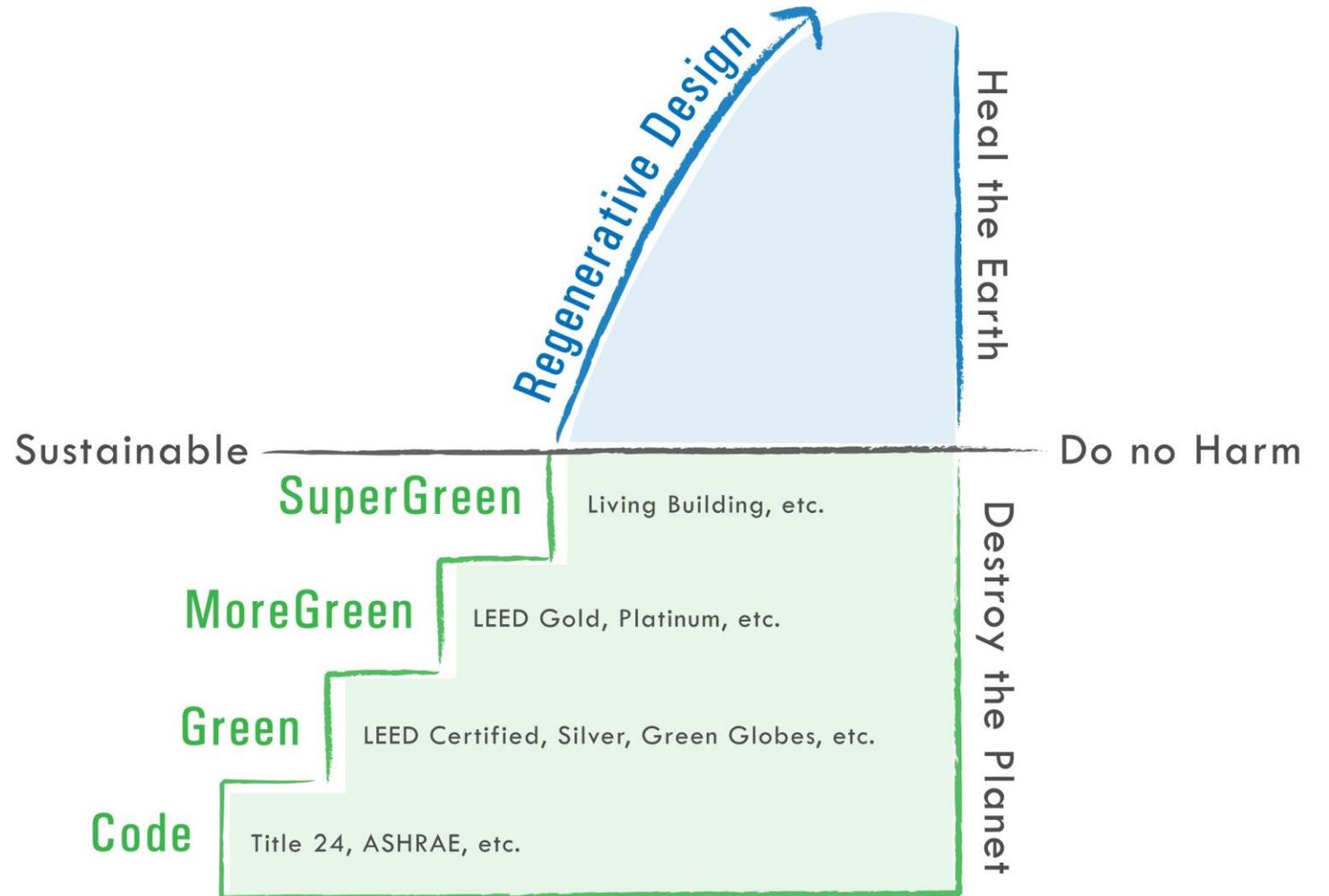
European trends

Joep Meijer, President of The Right Environment

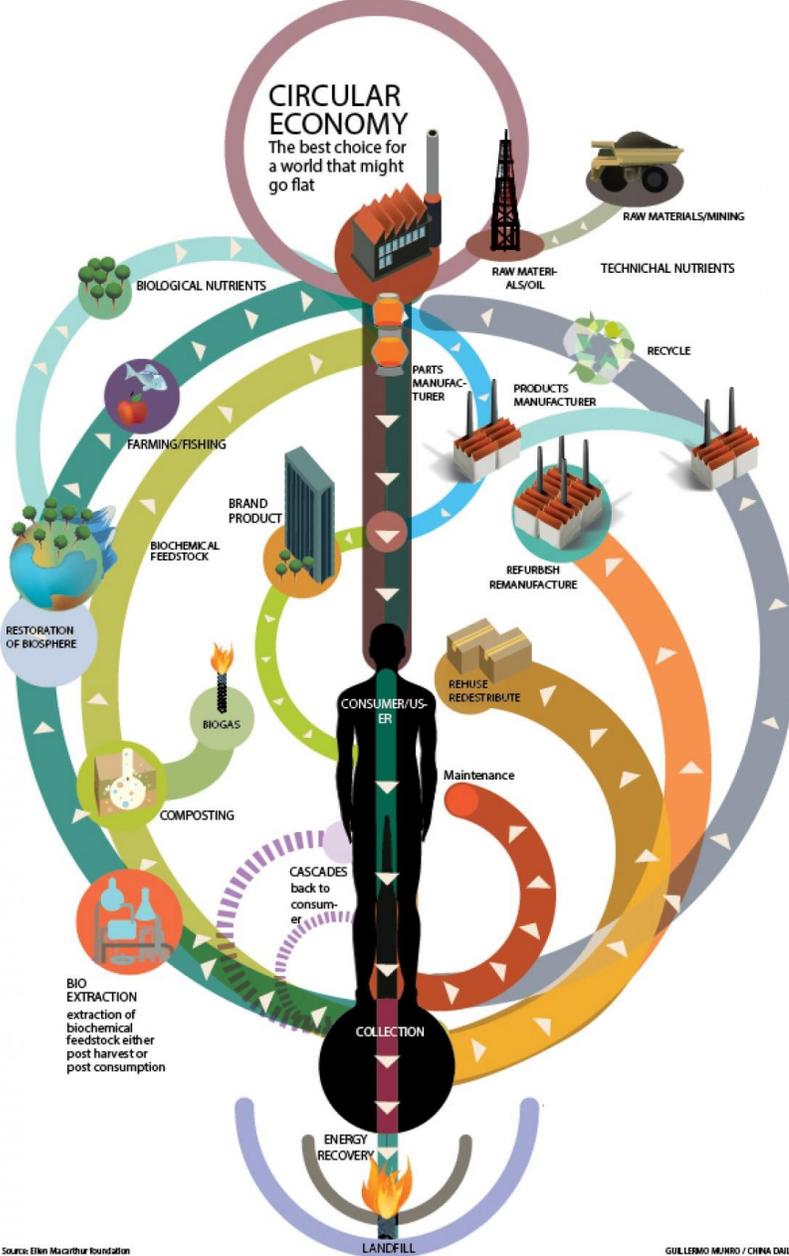
European DOTs are becoming excellent stewards of life cycle thinking
Combined with quantification using LCCA and LCA approaches



More and more DOTs
are moving beyond
doing less bad



They are improving their life cycle thinking to include what is called the circular economy



Some are formulating goals that are part of being regenerative.

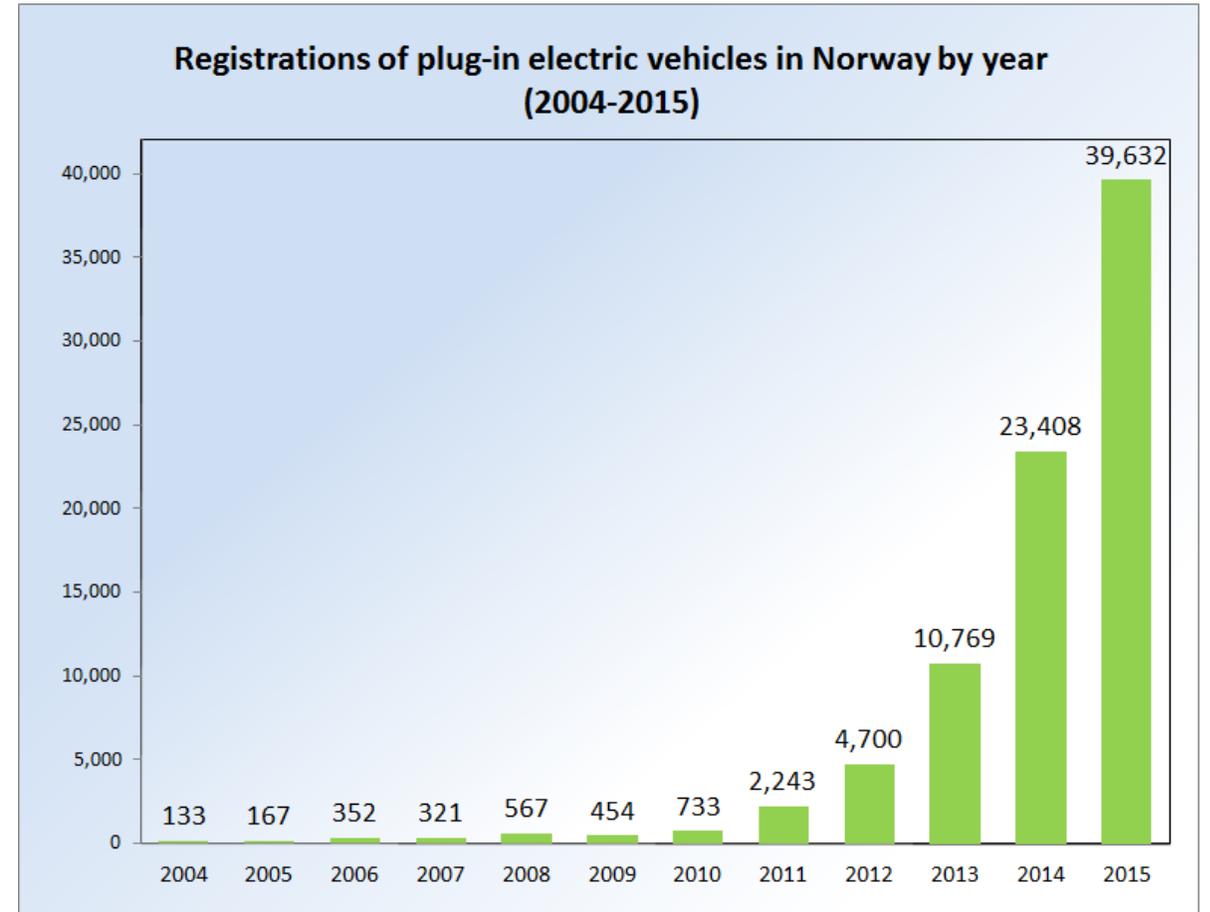
For example the Dutch DOT is thinking through the implications what it means to be NET ZERO energy by 2030, or in other words, generate enough energy around the roads as part of the DOT infrastructure to generate enough electricity to power all traffic that drives on the pavement



15 years from now most transportation will be electric which makes sustainable infrastructure all about the material footprint of the infrastructure

50% of cars sales are electric in Norway today

Total cost of ownership is lower today in the US



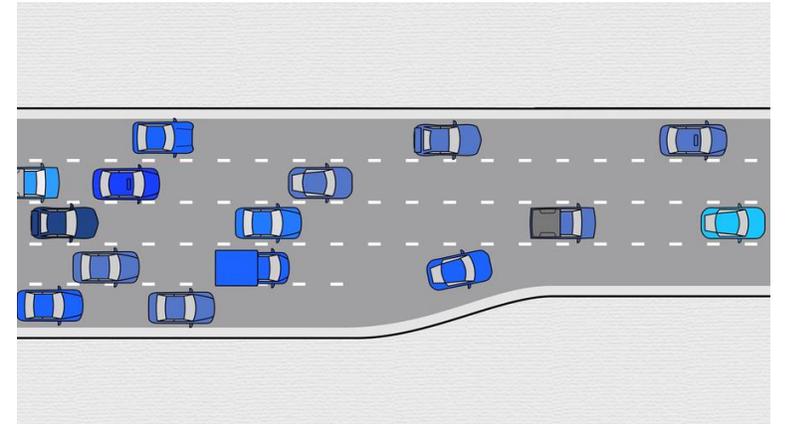
Which then puts more emphasis on the circular economy

Soon sustainability it is all about materials

Optimizing / accommodating local materials and upcycling of recycled materials

DOTs are starting to think about the implications of autonomous vehicles as it would alleviate traffic jams: less vehicles and higher volumes of vehicles that can be accommodated. Perhaps the existing capacity is sufficient for most regions for ever on.

Which would aid in becoming a circular economy as less new materials need to be used to grow the amount and size of the infrastructure.



Promote Innovation

DOTs are working more and more in contracts that put more responsibility on the shoulders of the contracting parties.

- Performance based
- Design build and operate/maintain contracts for say 20 years are seen more often.

This provides a tremendous opportunity for innovation.

It provides an incentive to balance construction and maintenance.

It is basically contracting for a service and not a predefined physical object.

Envisioning

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