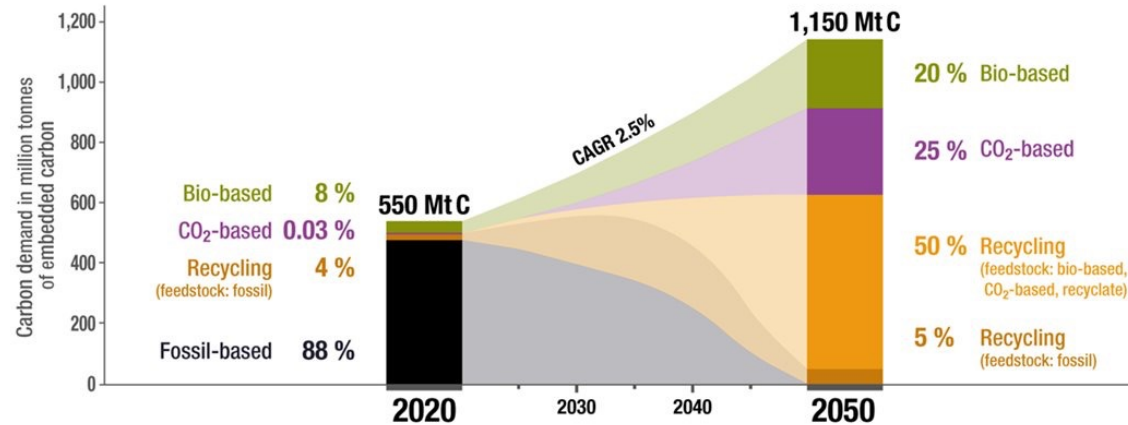


Stimulating biobased chemistry and materials through the Dutch  
National Growth fund initiative

# Our plastic addiction

**Carbon Embedded in Chemicals and Derived Materials**  
updated nova scenario for a global net-zero chemical industry in 2050

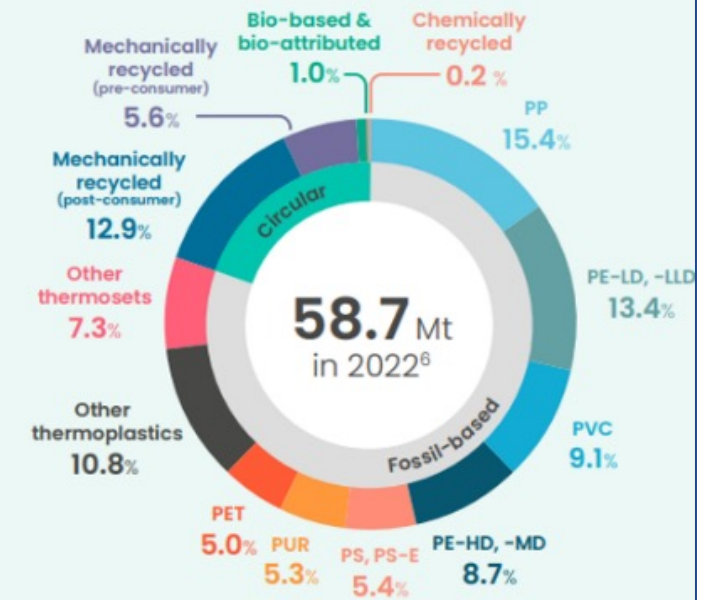


available at [www.renewable-carbon.eu/graphics](http://www.renewable-carbon.eu/graphics)

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Global plastics production: 400-450 Mt/yr

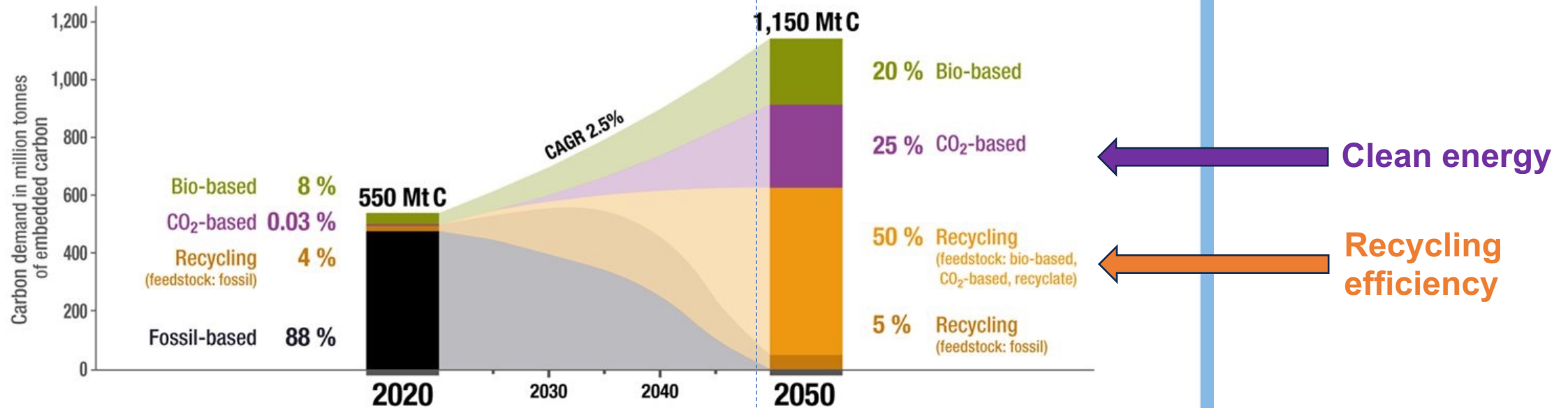
**European plastics production by polymer**



2024: 59 Mt/yr  
2050: 65 Mt/yr

## Carbon Embedded in Chemicals and Derived Materials

updated nova scenario for a global net-zero chemical industry in 2050



available at [www.renewable-carbon.eu/graphics](http://www.renewable-carbon.eu/graphics)

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# Her future?

**Just as comfortable as now...  
but without microplastics  
or climate worries**

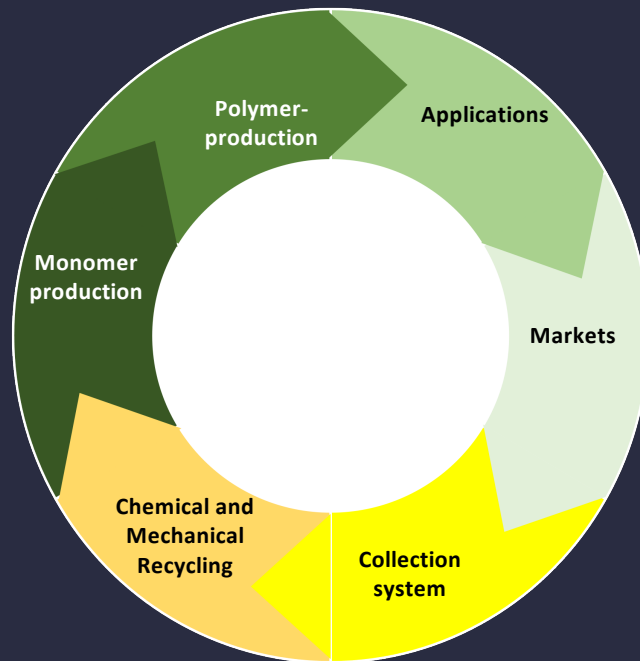
BioBased Circular makes smart biobased solutions market-ready that ensure we can continue to live as we know, but with respect for the planet.

[www.biobasedcircular.com](http://www.biobasedcircular.com)

## NGF Biobased circular supports a new circular industry for bio-polyesters and its applications based on carbohydrate feedstocks

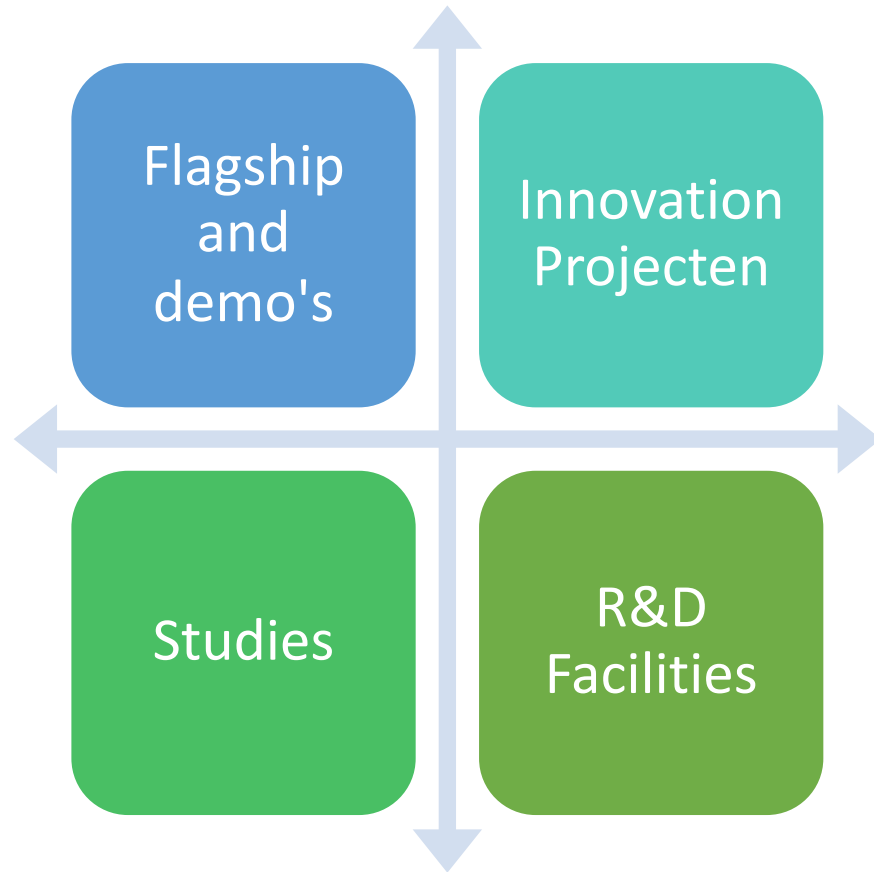
Ambition is to demonstrate economic and industrial feasibility by establishing five full-scale 'value circles' in 2032

- PLA, PHA, PEF , Coatings, Resins
- Packaging, Building&Construction, Textiles, Agri&Horticulture



Time: 2024-2032  
Subsidy € 338M  
Total value € 850M





## How?

- **Support for scaling up**  
Promising ideas receive support to mature. From lab scale to demonstrator, to flagship
  - Pilot > Demonstrator > Flagship
- **Organization of value circles**  
Removing barriers (intersectoral) collaboration
- **Financial support for research & development**  
Solving the last technological barriers through innovation projects. Investing in R&D infrastructure
- **Educate – Human Capital Agenda**  
Building strong learning communities

- 8 Consortia formed @ 5-6 M€ project value
- 12 Innovation projects @ 1 M€ value
- 60 small experiments @ 25 k€
- > 10 demonstrators identified/under discussion
- Studies on
  - Transition management
  - Biomass availability / Land-use
  - Logistics
  - LCA methodology
  - R&D facilities in the Netherlands
  - Public procurement
  - Human Capital Agenda

# Context changes since we started

- Geopolitical instability
- Chemical industry under heavy pressure
  - High energy prices / high costs Europe / fierce competition from Asia
- Investment climate slow
- Decreasing appetite for 'sustainable materials'
  
- ✓ Support from Europe
  - ✓ Life Sciences Strategy (2025), Biotech Act (2026), Circular Economy Act (2026), Start-up and Scale-up Strategy, PPWR





- Market creation
  - Create Market Pull: Renewable Materials Directive (RMD)
  - Harmonise market conditions across Europe
  - Protect cheap imports (CBAM for Carbon)
  - Smart public procurement (lead customer)
- Realistic approach for feedstock use
  - Allow (land)use primary feedstocks
    - Agri-industry will follow if there is a demand
- Focus on valorization and implementation
  - Improved financing for higher TRL-levels (state-aid)
  - Bigger tickets (IPCEI)
  - Improve funding access for scale-ups/SMEs (OIM)
  - Local support

**Cherish and nurture the frontrunners of the  
biobased economy in their journey to  
scale and implement**



