



RESILIENCE

SUSTAINABILITY

INNOVATION

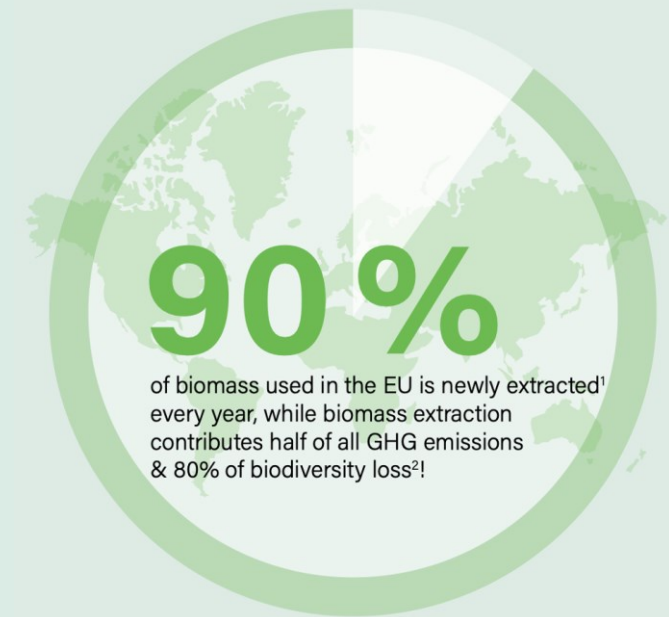
Big supply chain disturbances require action!

The supply chain crises, has led to many companies suffering from both **input & market loss!**

Biomass circularity is still at **only 10%** across EU → **Big opportunity** for better resource utilization that can help companies in the times of crisis!

Input / Market losses					
Loss of input criticality	Loss of market criticality				Grand To..
	High	Medium	Low	Null	
High	97	38	10	3	148
Medium	3	57	16	2	78
Low	2	10	56	1	69
Null	0	0	0	0	0
Grand Total	102	105	82	6	295

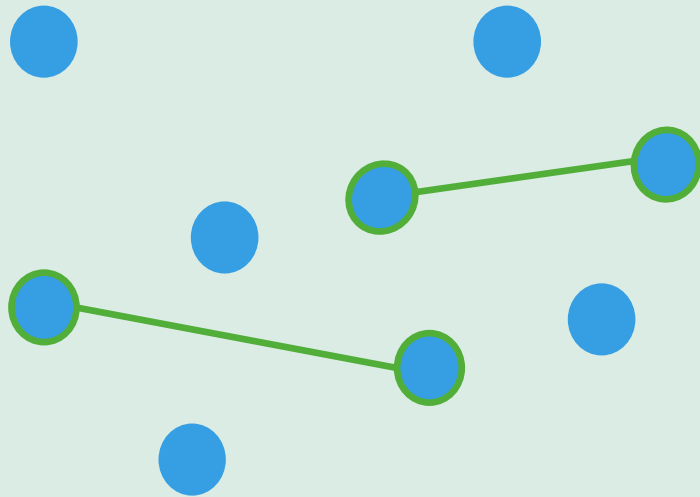
European Cluster Collaboration platform study, Match 2022



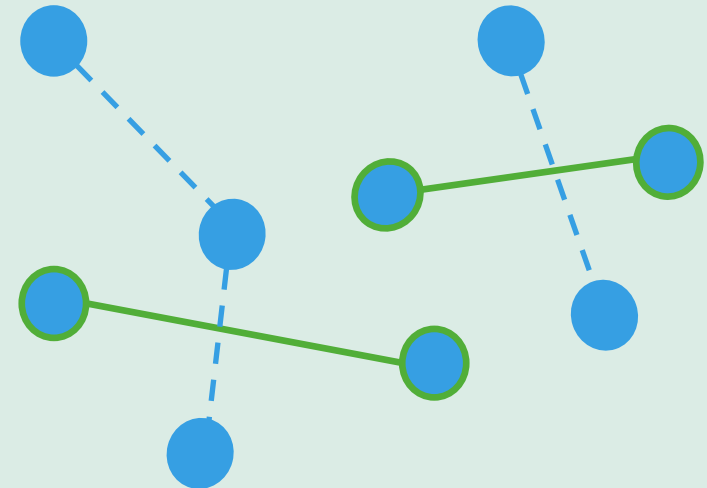
SME's need support in value chain development

Opportunities in circular bioeconomy

Some industrial symbiosis opportunities
already exist,
they just have to be discovered



For many symbiosis opportunities, there are
still technological & infrastructural gaps. **The
gaps must be discovered as well!**



Cross-regional & cross-sectoral collaboration

Identifies & assesses thousands of possible bioeconomy collaboration opportunities **across company networks & regions, in seconds!**

- **Reduces the search costs** for supply chain partnership development
- **Identifies new & innovative value chain designs** that improve resource efficiency



How it works



Step 1

Resource stream mapping

| Data gathering from multiple sources

VCG users add company data

Industry, NACE codes, inputs, outputs, processes...



Document understanding

VCG utilizes AI to read and understand websites, reports, articles & documents to extract data used for circular matching



Smart web searching

Searching through the public internet to find companies & company data to expand the VCG network beyond the registered company network



Step 2

Resource stream matching

| Data processing & smart matching

VCG uses the understanding of companies and knowledge of viable circular models to find cross-regional & cross-sectoral, circular business opportunities called **Biolinks**

VCG analyzes millions of data points and filters through millions of possible value chain designs to find all possible Biolinks for a specific company

Every biolink has a calculated score that estimates the potential fit between the different companies in the value chain



Output

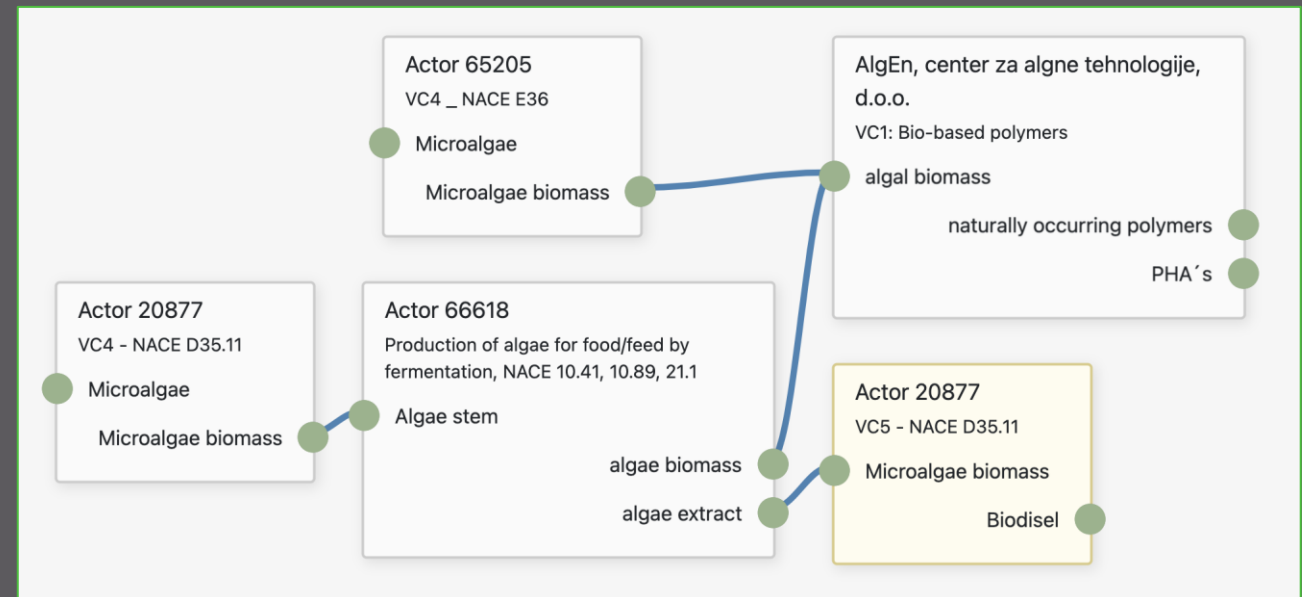
The most resource efficient upstream & downstream circular opportunities for individual companies and entire value chains in seconds!

Find Market Opportunities

BioLink Explorer

Find value chain opportunities and designs for individual companies

BioLink Explorer smart matches companies on the levels of **products, residuals and waste, both upstream & downstream.**



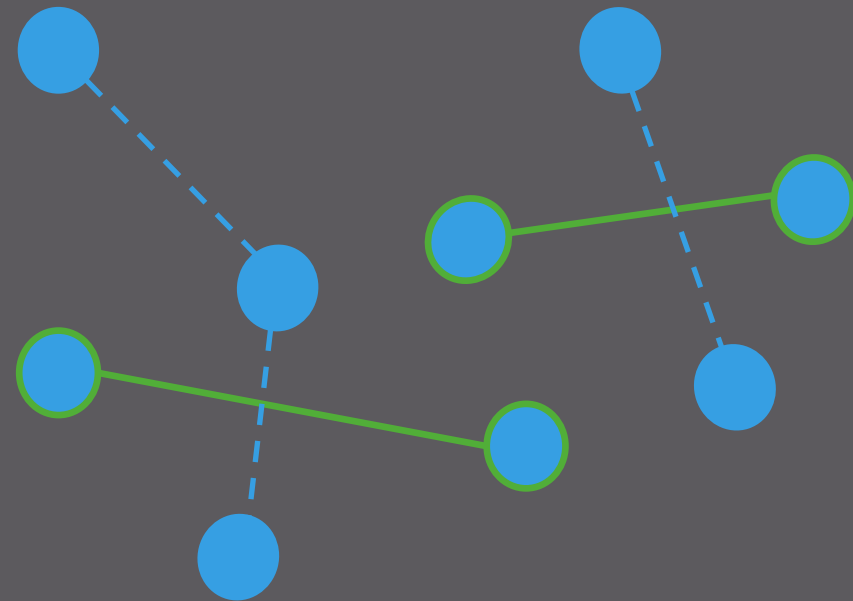
Discover Gaps & Drive Innovation

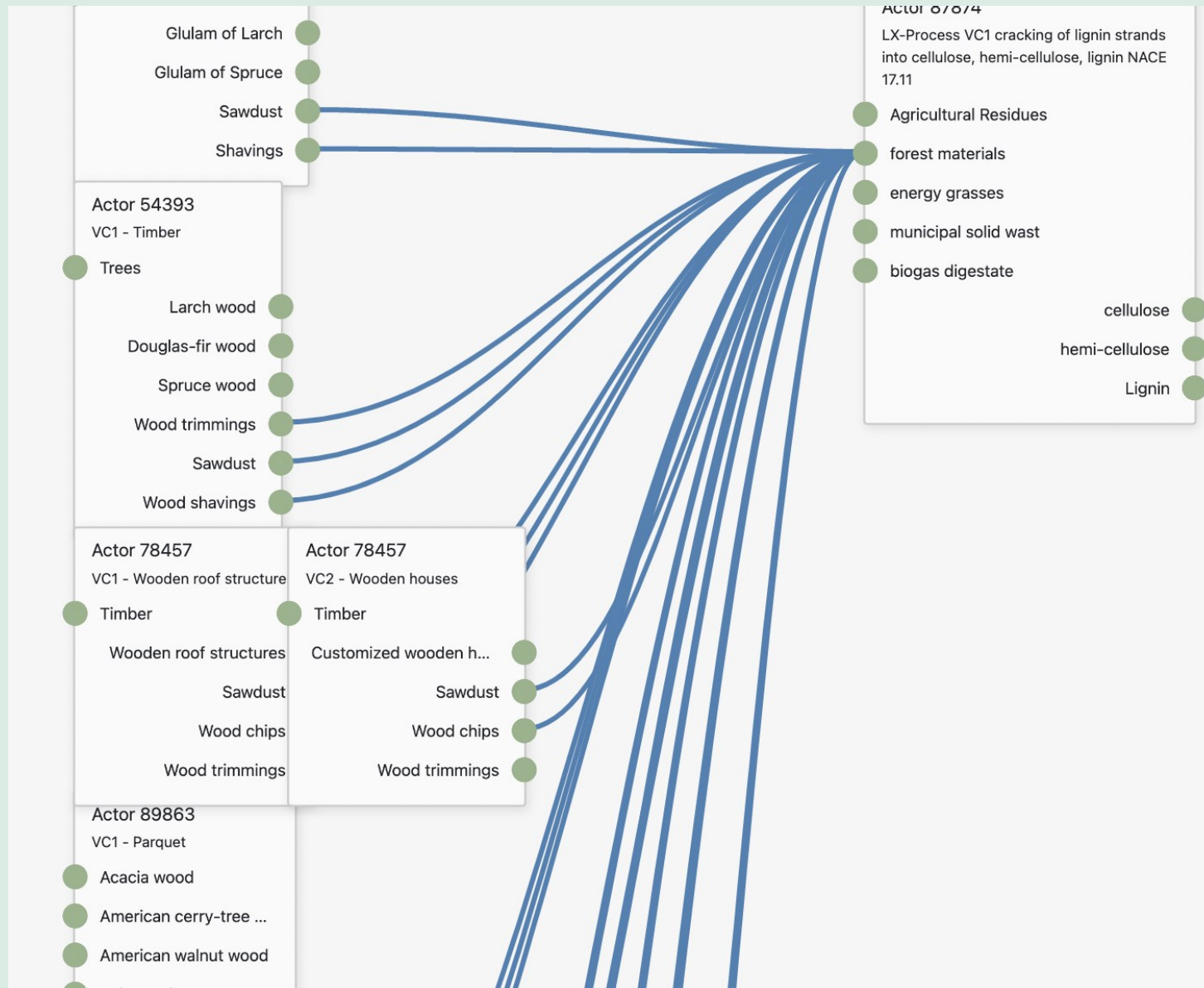
Data analytics

Find gaps in the value chains that are missing to improve circularity and collaboration potential.

- Where are residuals produced and in what quantities?
- What is missing in the ecosystem to transform the residuals into useful materials & products?

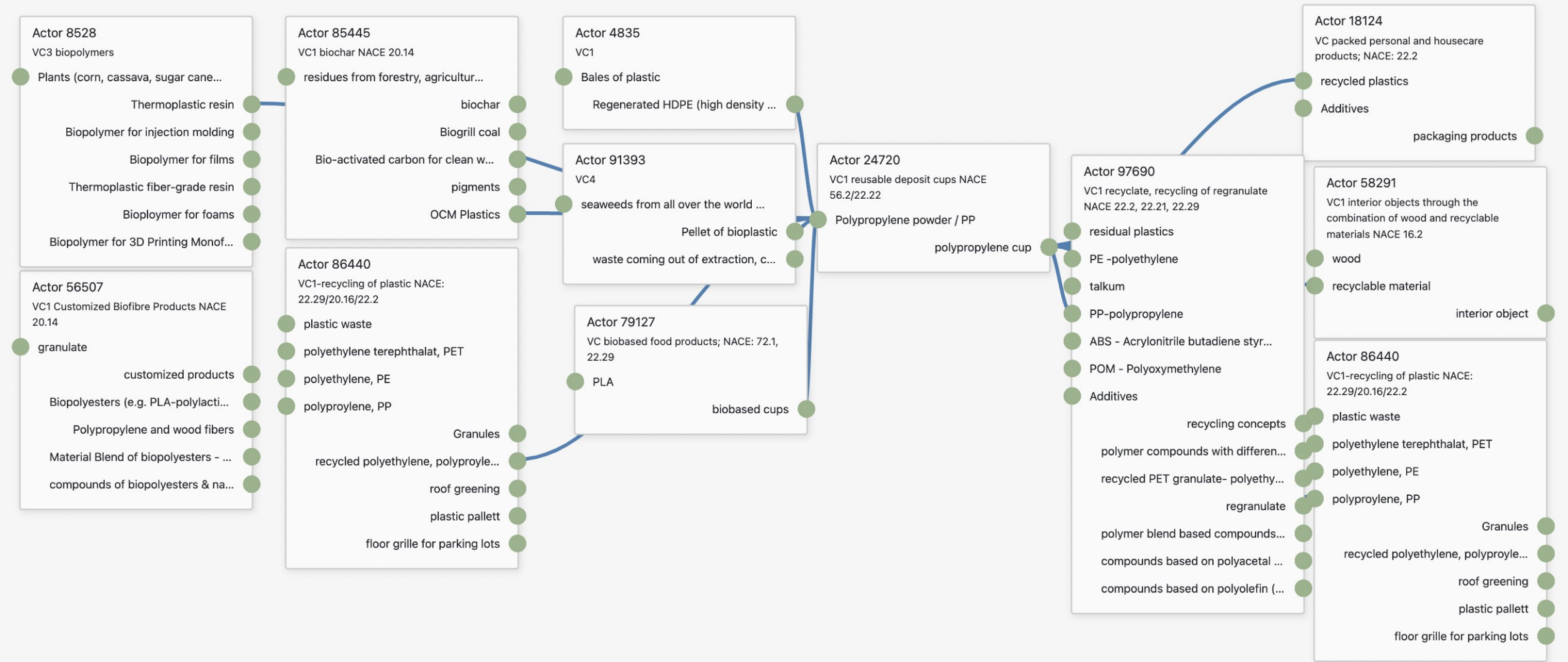
Develop collaborative R&D projects based on actual data!





BioLink examples
Reuse of residuals
from wood
processing for lignin
production

BioLink examples Usage of biobased polymers for reusable cups



VCG.AI network

Current network (March '22)

68 Company networks

2,000+ companies

Network growth (June '22 onwards)

BESTROCAL

Funded project in Germany: 10 networks

Danube Alliance

30+ networks across Danube region

And more...



**Let's see VCG.AI
in action!**



Let's develop
resilient &
sustainable value
networks together!



vcg.ai
VALUE CHAIN GENERATOR