

EuCIA welcomes Epoxy Europe Jan 23rd, 2023



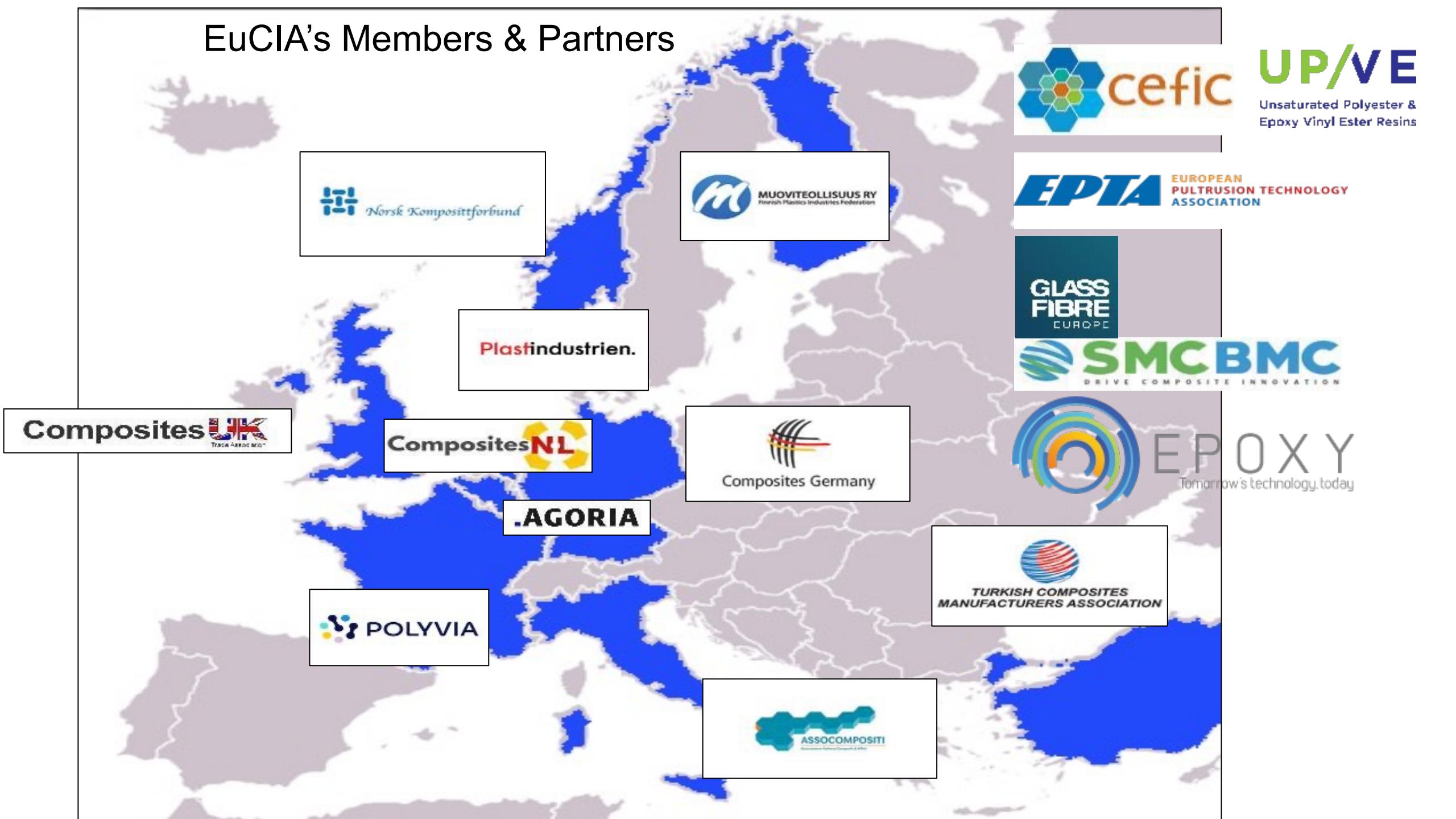




Agenda

- **EuCIA introduction**
- **National association presentation :**
 - NCMT, Norway
 - FPIF, Finland
 - TCMA, Turkey,
 - AVK, Germany
 - Composite UK
- **Sector group presentation**
 - GFE, Brussels
 - SMCBMC Alliance
 - Cefic Epoxy Europe
- **Update on WG SUS actions and proposal of actions**

EuCIA's Members & Partners



 Norsk Komposittforbund

 MUOVITEOLLISUUS RY
Finnish Plastics Industries Federation

 cefic

UP/VE
Unsaturated Polyester &
Epoxy Vinyl Ester Resins

EPTA EUROPEAN
PULTRUSION TECHNOLOGY
ASSOCIATION

GLASS
FIBRE
EUROPE

 **SMCBMC**
DRIVE COMPOSITE INNOVATION

Composites UK
TRACK ASSOC. LTD.

Composites NL


Composites Germany

 **EPOXY**
Tomorrow's technology, today

.AGORIA


TURKISH COMPOSITES
MANUFACTURERS ASSOCIATION

 POLYVIA

 ASSOCOMPOSITI



EuCIA in a few words

Vision statement

- EuCIA is the unified voice of the European composites sector representing the entire composites value chain, consisting of national and industry associations.

Mission statement :

- We support the sustainable growth of the composites industry and promote the development of a flourishing business environment, taking advantage of the combined expertise of EuCIA members.



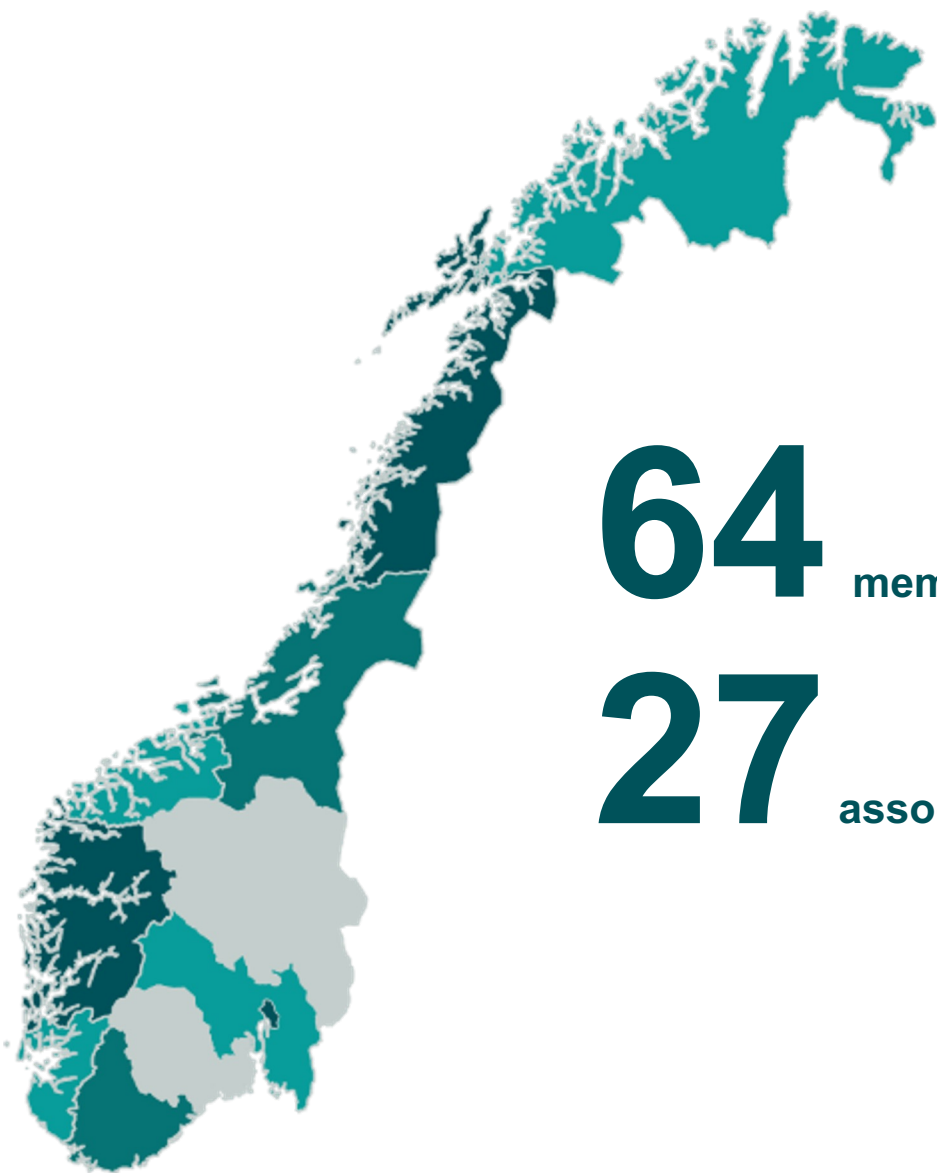
Our Goals :

1. **Position** : Explain and promote the contribution of composites and the composites industry to the European society, economy and environment :
2. **Advocate** : Provide expertise to support decision makers on defining EU standards and legislation
3. **Facilitate** : Support the growth of composite industry in creating a sustainable business environment in Europe
4. **Educate** : Support the education of designers, engineers and students for understanding the benefits and design rules of using composite materials
5. **Network** : Be a platform for EuCIA's members for networking and sharing experience
6. **Innovate** : Use our knowledge to foster composites innovation through channel partnership



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64 members

27 associated partners



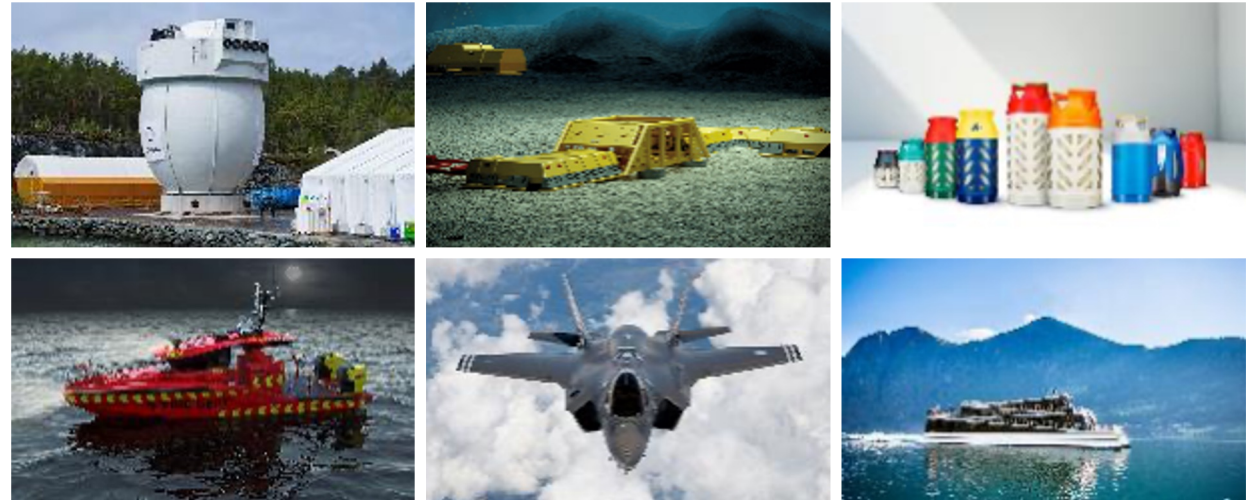
NORWEGIAN CIRCULAR
MATERIALS TECHNOLOGY
- POLYMERS & COMPOSITES CLUSTER

1. A tool for the Norwegian polymer and composite industry.
2. Building competence through collaboration, education and recruitment.
3. Industrial development in circular value chains through R&D and sharing of knowledge.
4. A gathering voice for the Norwegian polymer and composite industry; both national and international.

<50 employees	65%
51-200 employees	25%
>200 employees	10%

Thermoplastic	24
Thermoset	43

Offshore, aquaculture & energy	26
Transportation	16
Construction & piping	21
General Industries	12



Importing and exporting ideas, knowledge and solutions for our members, and extending their reach and network through:



Finnish Plastics Industries Federation

Pirjo Pietikäinen
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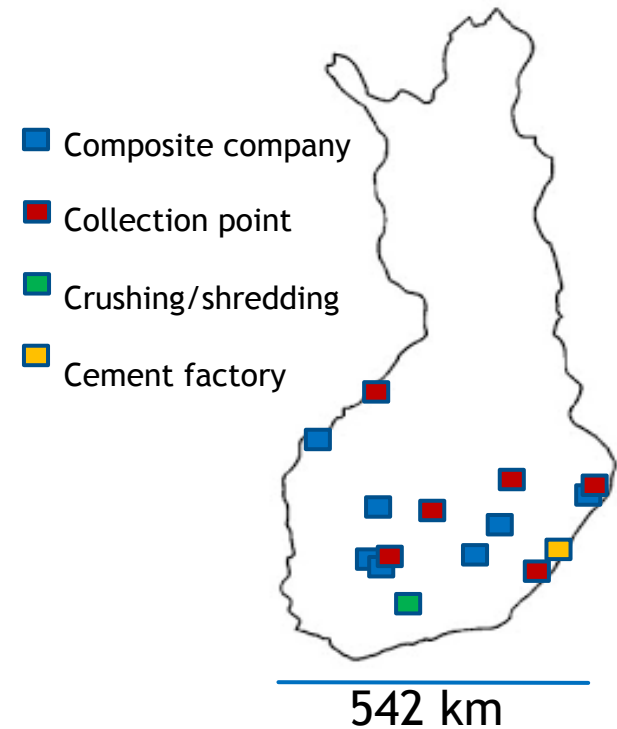
Finnish Plastics Industries Federation - FIPIF

- <http://www.plastics.fi/eng/>
- Represents Finnish plastics manufacturing companies and the Finnish plastics sector
- Composite group
 - Companies as members
 - Finnish Companies
 - manufacturing composite products
 - manufacturing resins
 - distributing composite raw materials or machinery



Finnish Plastics Industries Federation

- ▶ Kimura-project
 - ▶ National system for composite recycling
 - ▶ Waste form industry, co-processing
 - ▶ https://www.plastics.fi/eng/activities/kimura_in_english/
- ▶ Motivation of being member in EuCIA
 - ▶ Together we are strong!





KOMPOZİT SANAYİCİLERİ DERNEĞİ

TURKISH COMPOSITES MANUFACTURERS ASSOCIATION

EuCIA Meeting 23.01.2023

TURKISH COMPOSITES MANUFACTURERS' ASSOCIATION

TCMA;

- Founded in May 18th, 2005
- Represents all stakeholders of the Turkish composites sector
 - Annual growth of the sector is 6%
- More than
 - 100 members
 - 10K employment
 - 2 Billion € Export

Main activities:

- **TURK COMPOSITE EVENT:** Organization of Turk Composite Exhibition, Webinars and Meetings
- **SUSTAINABILITY:**
 - Recycling Center Project for Composites
 - Following up Horizon Europe Projects
- **EDUCATION & STANDARDIZATION:**
 - Cooperation with Standard and Government Institutes
 - Issue of educational material for composites
- **AWARD & INNOVATION:**
 - Support for the young composite's enthusiasts and professionals

TURKISH COMPOSITES MANUFACTURERS' ASSOCIATION



Turkish Composites Producers:

- **Wind Energy: 4 Blade Facilities located in Izmir Area.**
 - 2 TPI, 1 LM and 1 Enercon/Aero
- **Pipes:** 6 continuous and 2 helical pipe producers.
- **Automotive:** SMC, BMC, RTM product supply to main OEM's such as Fiat, Ford, MAN, Mercedes, Renault etc.
- **Defense and Aviation:** TUSAŞ(TAI), Baykar and Roketsan are the key players.
- **Construction:** City furniture, Seismic Retrofitting
- **Sport & Entertainment:** Waterparks & Sports
- **Marine:** Antalya and Istanbul are the main hubs for composite boat production
 - Capable to produce up to 50 m Composite Boats
- **Pressure Vessels:** CNG,LNG,LPG,H2 tanks

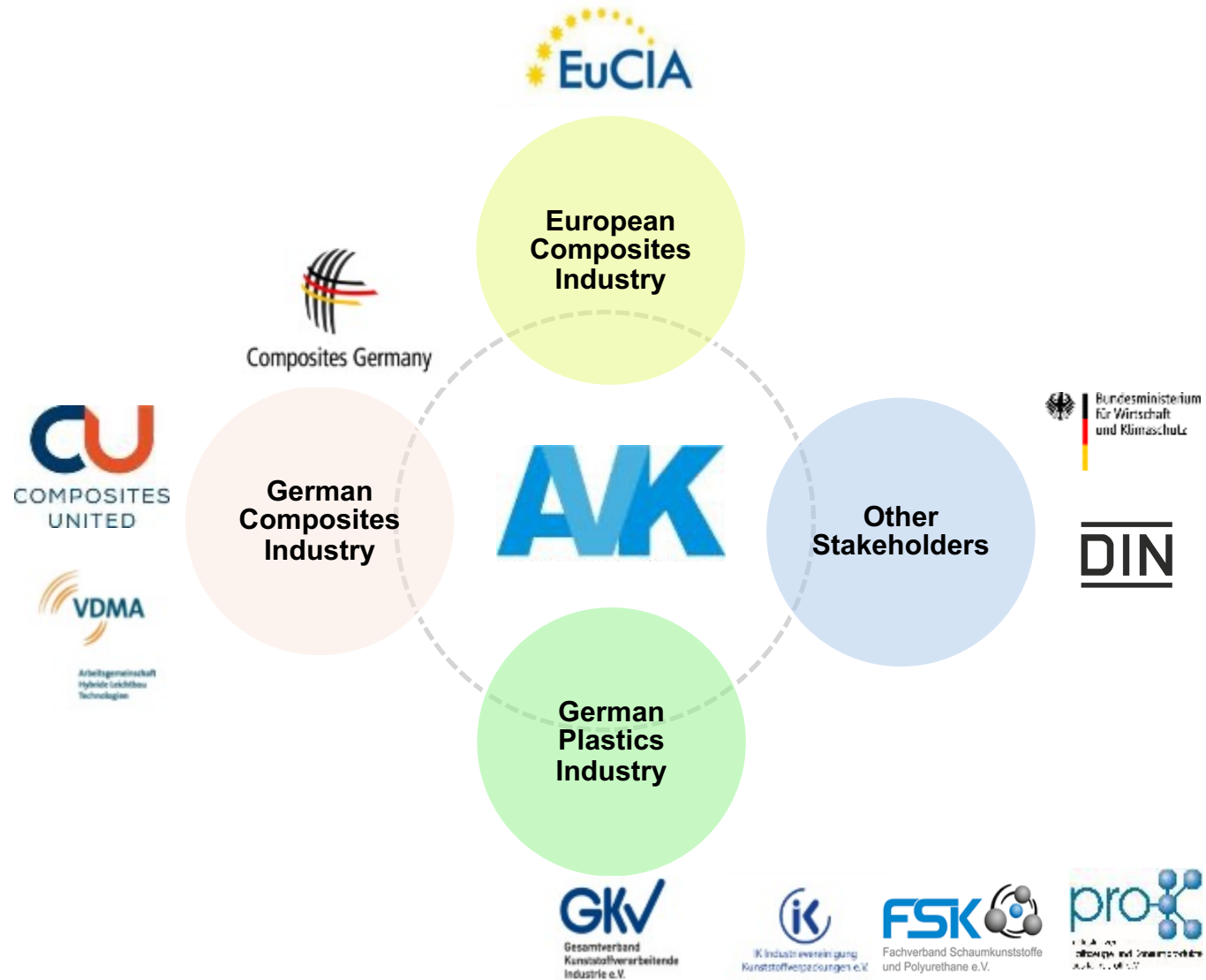
Raw Material Producers

- 2 **Glass Fiber** and 1 **Carbon Fiber** producer
- 8 **Polyester** and **Vinyl Ester** producer
- 1 **Epoxy System** producer

Intermediates Producers

- 4 **Multiaxial** and 6 **Woven Fabric** producers
- 2 **Core** and **Fabric Kitting** facilities
- 6 **Prepreg** producers

AVK - The Network



AVK - The Organization

- **Founded in 1924, > 240 member companies (1/3 non German)**
- **Main Pillars of our work:**
 - **> 20 Expert Task Forces**
 - **Participation in Funded Projects (Recycling, Sustainability, Lightweighting)**
 - **Seminars, Conferences (World Pultrusion Conference, SMCCreate)**
 - **JEC Forum DACH**
 - **Annual European Composites Market Report**
- **Member of  EuCIA**
 - **Composites industry is very international**
 - **Industry needs a strong voice in Europe to political decision-makers, standardization bodies, the press and the public**
 - **Active and successful cooperation in various areas**
 - **ECO-Impact Calculator**
 - **Working Group Sustainability**



- Formed in 1989
- Trade Association for the UK composites industry representing over 365 member companies
- Support those working in the supply chain of fibre-reinforced polymer composites
- Promote and develop good practice
- Bring companies throughout the supply chain together, creating partnerships
- Unified voice for the industry
- Governed by a board of 11 directors elected by the membership
- Staff of 8 focused individuals
- Our strategy is focused on 5 pillars, built on a base of membership and events, with cross cutting focus on sustainability

Our values are part of who we are, what we stand for and how we act.

Our Core Values



Our values will evolve with time



BUSINESS SUPPORT FOR OUR MEMBERS

Some of the services we offer:

- Helpdesk for technical and business enquiries
- Representation on key industry bodies
 - Composites Leadership Forum – UK strategic virtual organisation
 - EuCIA – to ensure continued strong relationships with our European counterparts following Brexit
- H&S advice and support through HSE initiative SIMPLC (safety in manufacturing of plastics and composites)
- Industry Regulations, Codes, Standards
- Workforce development – signposting to critical information and providers
- Business Support Network provides advice and guidance to members on exporting, R&D tax credits, government funding, insurance, industrial services, recruitment, logistics and more...
- Publish best practice guides which are downloadable from the website
- Sub/Sector Groups
 - Construction – tackles blockers for uptake of composites in the sector
 - Material Suppliers – provides support on legislative and supply issues
 - Sustainability – provides support and guidance on circularity issues





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WHO WE ARE



Founded in 1987, Glass Fibre Europe is **the voice** of the European continuous filament glass fibre industry.

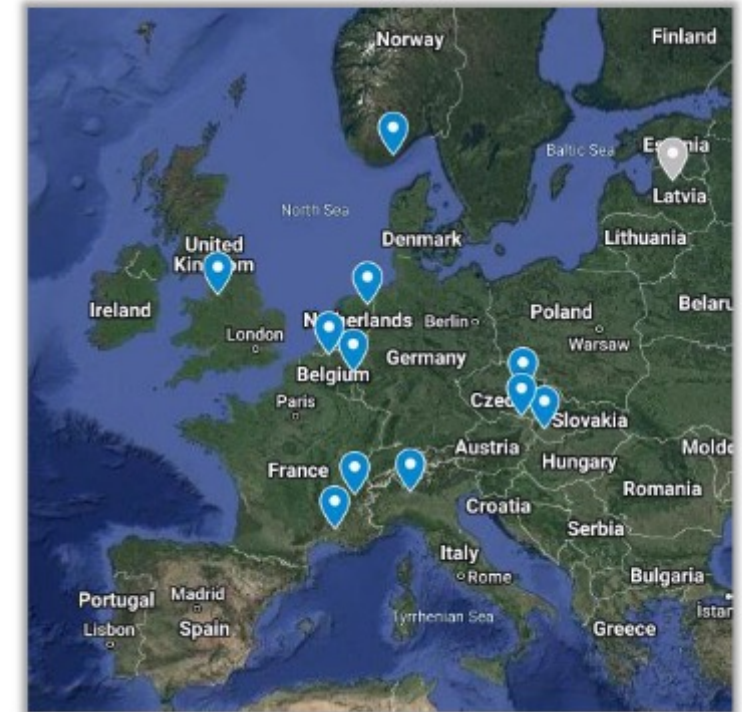
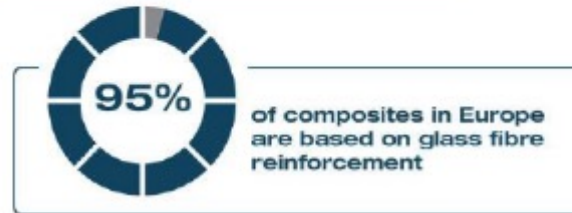
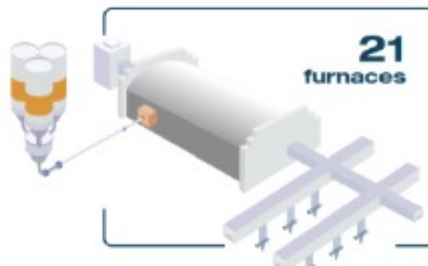
A committed **partner to the European Union**, interacting on behalf of its members with European institutions, media, non-governmental organisations and other stakeholders.



Glass Fibre Europe is registered in the EU Transparency Register under n°635608817518-09

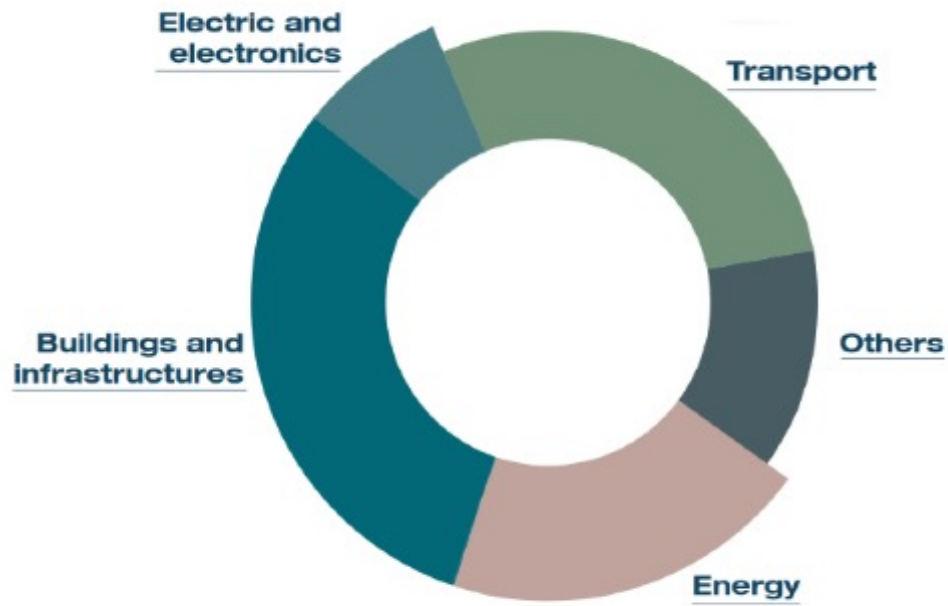


GLASS FIBRE EUROPE - 7 MEMBER COMPANIES





MAIN APPLICATIONS



- Founded in 1993 as an industry association of European companies involved in the SMC & BMC technology
- The European Alliance SMCBMC is a sector group of EuCIA

Mission

- Promote the benefits of the SMC BMC Composite solutions through :
 - Providing details on typical end-uses for these material systems
 - Explaining the features and associated benefits
 - Making available design information to engineers and designs
 - Connecting key stakeholders in the supply chain
 - Facilitating the information exchange about these materials at selected seminars, exhibitions, roadshows

Members profil:

- SMC & BMC manufacturers
- Transformers / moulders
- Suppliers of resins, fibers, additives and other raw material
- Engineering companies & Scientific institutes

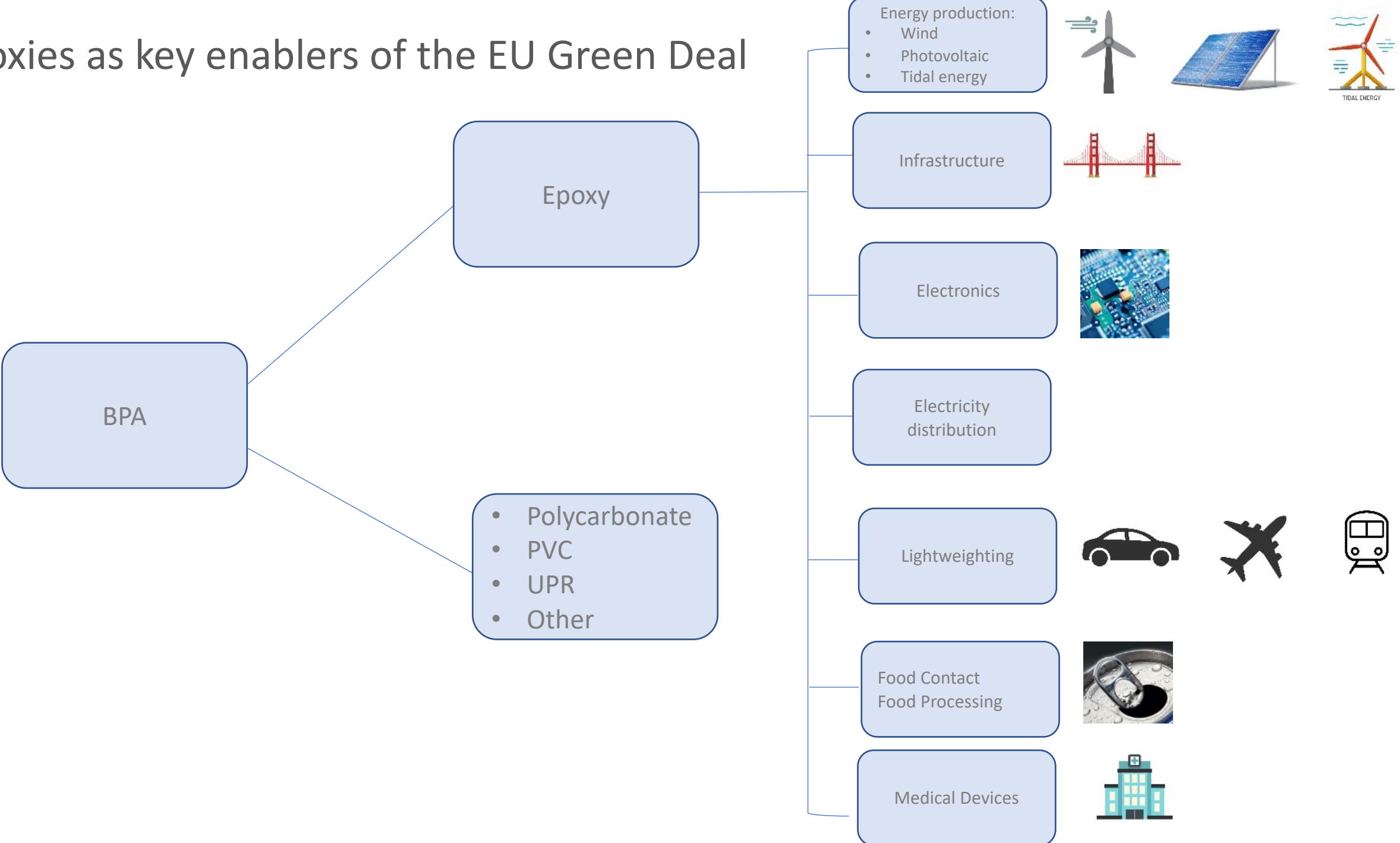


About Epoxy Europe



- Epoxy Europe represents the interests of the major European epoxy resins manufacturers as a sector group of Cefic.
- Epoxy resins' diverse chemical characteristics make them essential for a range of industrial and everyday applications:
 - Paints and coatings
 - Construction and flooring
 - Automotive and public transport
 - Water pipework
 - Food packaging
 - Electronics
 - Energy
 - Sports and leisure
 - Aerospace

Epoxies as key enablers of the EU Green Deal



Collaboration with EU CIA



Epoxy Europe's views on Composites Circularity



- ✓ Build a network with the downstream user industry associations
 - ❑ Gaining a better understanding of the needs and drivers of the composite industry across various industry sectors (advantages & pain points)
- ✓ Advocacy to promote technically and economically viable recycling technologies for thermosets with political decision makers (at EU level)
 - ❑ Exploring and evaluating composite recycling technologies
 - ❑ Understanding the potential scope of composite waste streams in Europe (database building), now and in the future - development of composite waste end-of-life/recycling roadmaps
 - ❑ Understanding the ins and outs of waste processing in Europe (industry sectors, process, economical impacts, technology, legal compliance)
- ✓ Inform about the recyclability solutions for thermosets materials (list of solution + capacity)
- ✓ Develop political positioning towards Extended Producer Responsibility (EPR)
- ✓ Promotion of composite materials as superior solutions with industry, authorities, and society in general
- ✓ CF vs GF-EuCIA position (recycling opportunities)
- ✓ Advocating the establishment of a composite recycling infrastructure and enabling legal framework
 - ❑ Specific waste code(s),
 - ❑ Collection system, and
 - ❑ Legal feasibility of trans-border shipment of composite waste



EuCIA Working Group Sustainability, update





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Working Group Sustainability, Update :

- **EuCIA Position Paper** : Circularity of Composite material published in Nov 22
- EuCIA WG SUS attendees to disseminate our messages and set-up alliance
 - Wind Europe
 - Workshop Oct 22, with Cefic, EBI & CemBureau; Eolis Dec 22
 - CSR blueprint on circularity , October 22 ; Follow-up with Baxs & Cie , Jan 23
 - Recomp Nov 22 organized by Composite UK
 - Boat show Dusseldorf with EBI , Jan 23
- **EU Recyclers list**
 - Cooperation with ACMA – GCSCA (Global Composites Sustainability Coalition Associations)
 - EuCIA to dispatch a first list by end of Jan 23
- **Standards**
 - EuCIA involved on TC 301 WG17 about Plastic recycling for road vehicles
 - Early stage cooperation with Austrian national body for a waste standard for FRP pipes





Proposed Composites Recycling Market Survey

- Follow up of workshop with WindEurope, EBI, CEMBureau
- Joint initiative of EuCIA, Cefic UP/VE, and potentially others sector groups
- Aimed at processors of composites materials across all end-use markets and composites transformation processes
- Objectives:
 - Better quantify waste volumes (both production and End-of-Life)
 - Obtain more information about barriers for collection, transport and processing
- EuCIA will use survey results to help building a composites recycling infrastructure, while trying to resolve barriers for implementation
- Enabling a sustainable growth of the European composites industry



Survey Details

- Survey link to be sent out through:
 - EuCIA country organizations to their individual company members
 - Cefic UP/VE, Epoxy Europe, GlassFiber Europe members to their individual customers
- Need to confirm who can collect response and combine the survey information
 - Cost to be confirmed, likely in order 10-15 k€
- Results will be reported on an anonymous basis, i.e. details of individual companies should not be disclosed outside the Cefic Statistics group
- It may be possible that companies will receive the survey link multiple times
 - One survey per company (so we avoid double counting)
- Survey link will be open asap



Great Developments at EBI wrt Recycling

- EBI has been working on recycling roadmap with DG Mare/ EU Commission
 - Outlining development of collection system for End-of-Life boats across Europe
 - Includes strong reliance on Co-processing for recycling
- Representative from EU Commission will present this roadmap on Jan 25th at Boat Düsseldorf
- Then two panel discussions at the event on implementation (Thomas Wegman and Raphael Pleyne to talk on behalf of EuCIA)
 - Great opportunity to network with key stakeholders



Proposed LCA for Recycling/ Co-Processing (1)

- Follow up of workshop with WindEurope, EBI, CEMBureau
- Desire to have robust data for convincing all stakeholders (incl. EU regulators) that co-processing is a good way to go
- Also, clear LCA data/ recycling solution availability will be key requirement for new tenders (Wind, Construction)

Other initiatives ongoing

- GE Renewables has done LCA on co-processing
 - EuCIA checking whether we can have access
- DecomBlades is doing similar comparison
 - EuCIA will be in contact and coordinate



Proposed LCA for Recycling/ Co-Processing (2)

- LCA exercise done in 2012 between DSM and Holcim
 - Using co-processing LCA model from ETH Zürich
 - Calculating 16 % CO₂ reduction at 75 % recycle content
- LCA capability no longer at Holcim
 - Now need to looking for partner for doing the LCA: ETH Zürich, University Aachen
- Scope of analysis still to be defined
 - Just Co-Processing, or Co-Processing vs. Pyrolysis?

New LCA on Co-Processing vs. Pyrolysis

- Total cost likely in order of 30-40 k€
- Alignment with other Stakeholders desired for minimizing cost (Discussion initiated with WindEU, CemBureau already...)



Warm thanks to our host





 we know |  we show |  we grow
THE WORLD OF COMPOSITES



EPOXY
tomorrow's technology, today





Actions Workshop WindEurope, EBI, CEMBureau

- Information on composite material waste volumes including decommissioned/ end-of-life assets and manufacturing waste (EBI, EuCIA, WindEurope)
 - Explore options to make data on composite material waste in Europe more easily accessible for all interested parties (WindEurope to lead)
- Statement on win-win benefits co-processing (EBI, CEMBureau, EuCIA, WindEurope)
- Updated fact-check on emissions savings, waste material requirements, and other benefits of co-processing composite material waste (EBI, CEMBureau, EuCIA)
 - Explore options for a joint study on lifecycle assessments (EBI, CEMBureau to lead)
- Prepare joint position on waste codes for composite material waste
- Facilitate collection of composite waste/ combine volumes for processing
 - Engage with intermediary waste management companies (EBI, EuCIA, WindEurope)





**Thank you for your participation;
See you all next time in Paris for our General Assembly on April 24th, 2022**

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