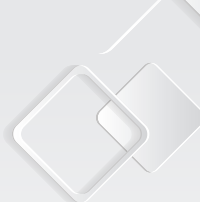


## COMPOSITES IN BRITTANY

### Summary

2017 Data





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# STUDY CONTEXT AND METHOD



This study was conducted in collaboration with the Composite Bretagne network, as part of the missions entrusted to Bretagne Développement Innovation for the composites sector. The goal is to map the competencies of the composites sector in Brittany, to estimate its economic weight and to identify levers for growth.

Actors have been identified over several years through collaborative work with the members of the Composite Bretagne network, the Chambre Régionale des Métiers et de l'Artisanat, the Institut Maupertuis, the ENS Rennes and Bretagne Loire University.

The data presented below are based on the results of a survey conducted in the autumn of 2018 to 147 stakeholders identified in the sector. 86 replies were received, a response rate of 58%. The decision was made not to extrapolate the data and to remove extreme values.

## Scope of the Study

The composites sector includes manufacturers of composite parts and sub-assemblies, manufacturers of composite production equipment, producers of raw materials and consumables, service providers, end users and distributors. The scope defined is the same as that used by JEC Group, in their international directory.



# 2017 KEY FIGURES A FAST-GROWING SECTOR

# 147

STAKEHOLDERS THROUGHOUT THE REGION

BASED ON 86 RESPONDENTS



DIRECT JOBS

## 2,047

including  
more than

## 737

 (36%)

DIRECTLY INVOLVED IN

COMPOSITES BUSINESS



TURNOVER

## €367 M

 ex. VAT

including

## €180 M

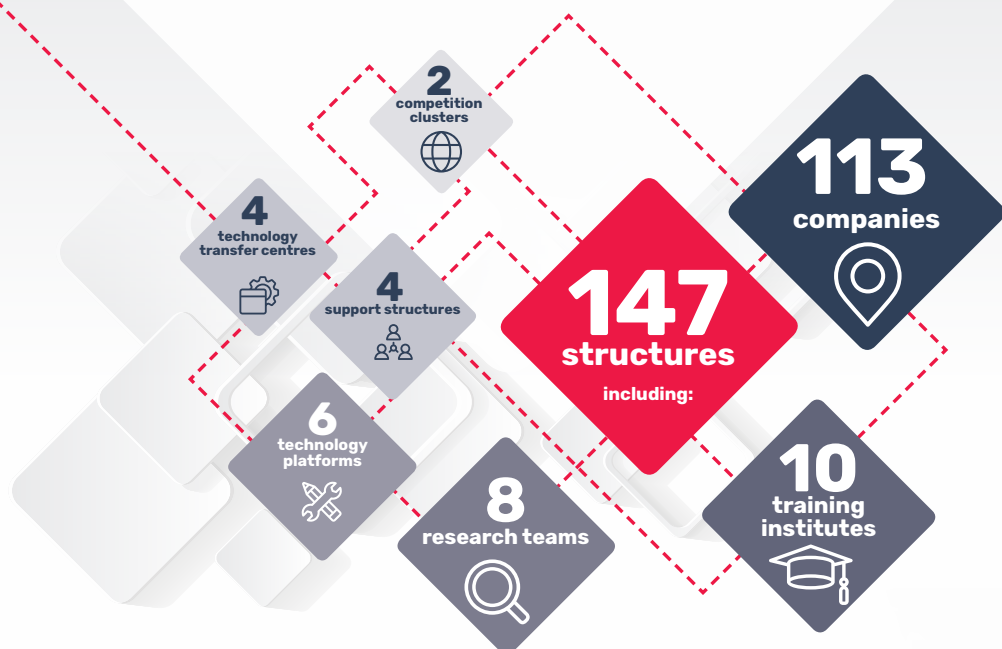
 (49%)

DIRECTLY INVOLVED IN

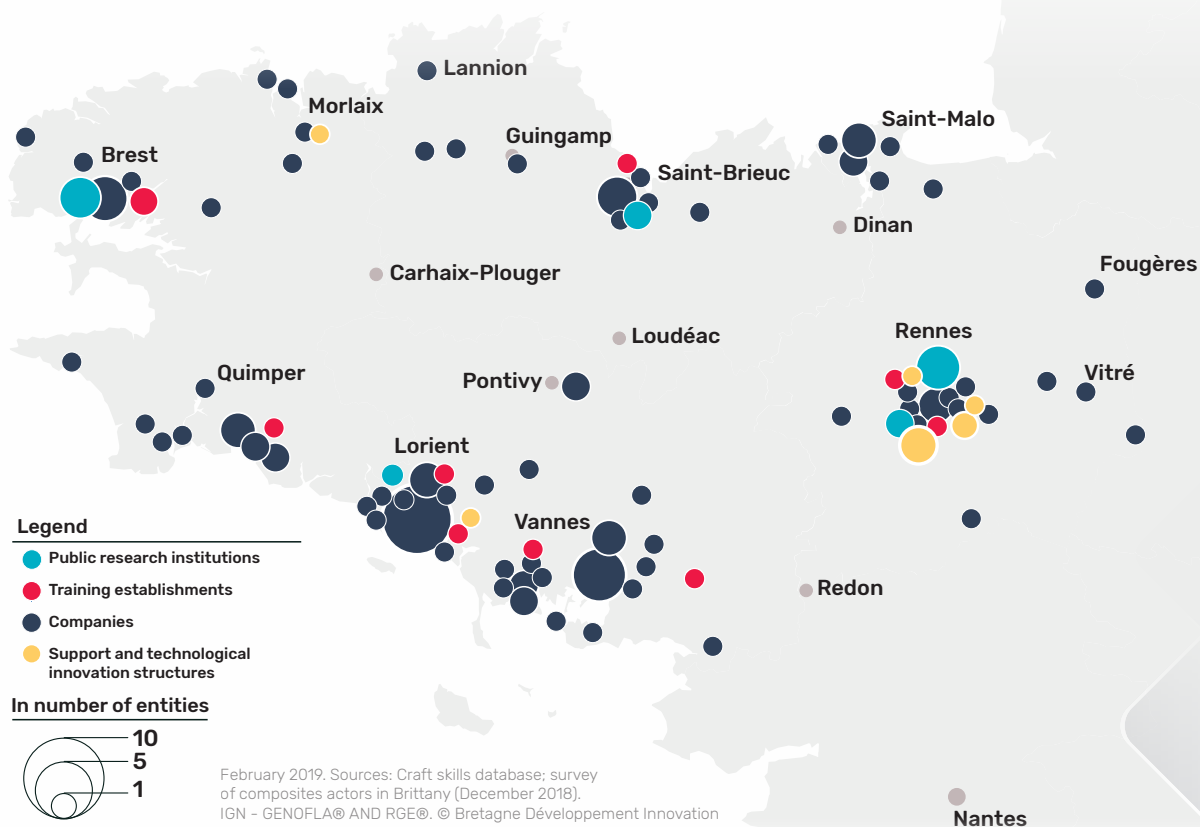
COMPOSITES BUSINESS

**+5%**  
in 2018

# A COMPLETE, DIVERSE ECOSYSTEM



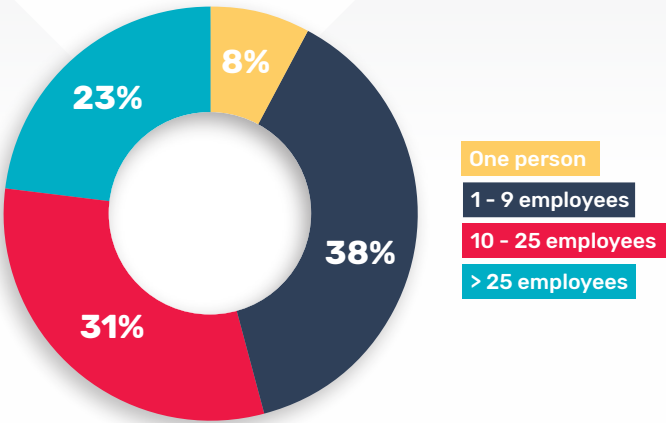
## DISTRIBUTION OF 147 ACTORS IN THE REGION



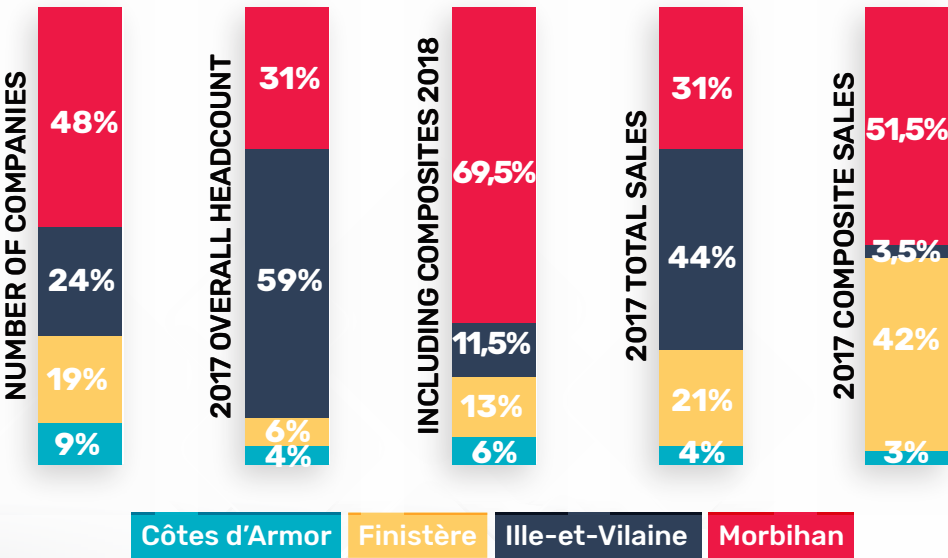
GENERAL OVERVIEW



A TISSUE OF SMES:  
MORE THAN 9 COMPANIES OUT OF  
10 HAVE 25 EMPLOYEES OR FEWER

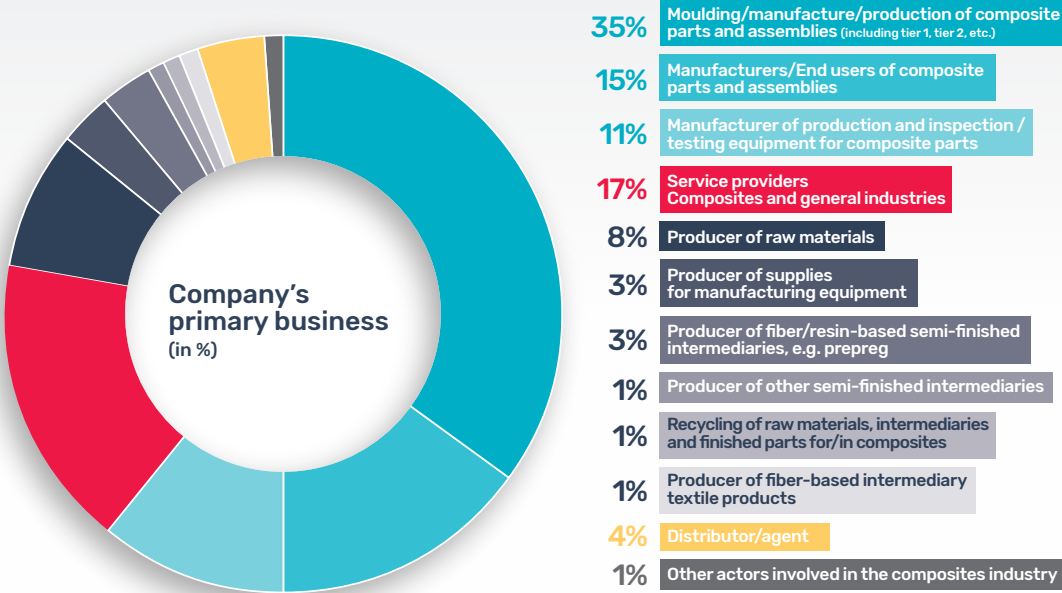


VARIABLE ECONOMIC WEIGHT DEPENDING ON THE DEPARTMENT



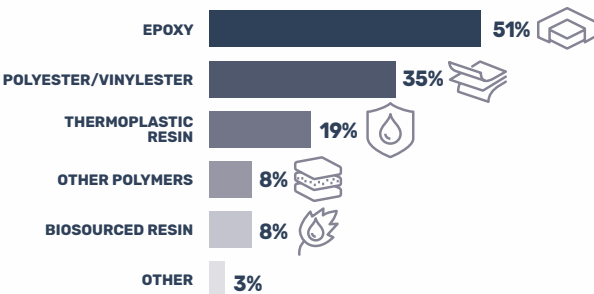
# Companies replying to the survey (86 respondents)

## A COMPLETE VALUE CHAIN WITH CONCENTRATION ON MOULDING AND MANUFACTURING ACTIVITIES



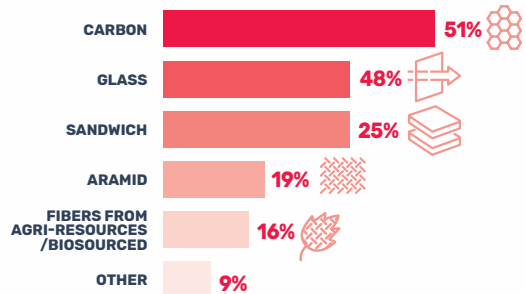
## A WIDE VARIETY OF MATERIALS USED WITH PREDOMINANCE OF HIGH-PERFORMANCE (IN % OF NUMBER OF MENTIONS)

### Matrix Materials



High performance (Epoxy)  
**51% of companies**

### Reinforcement Materials

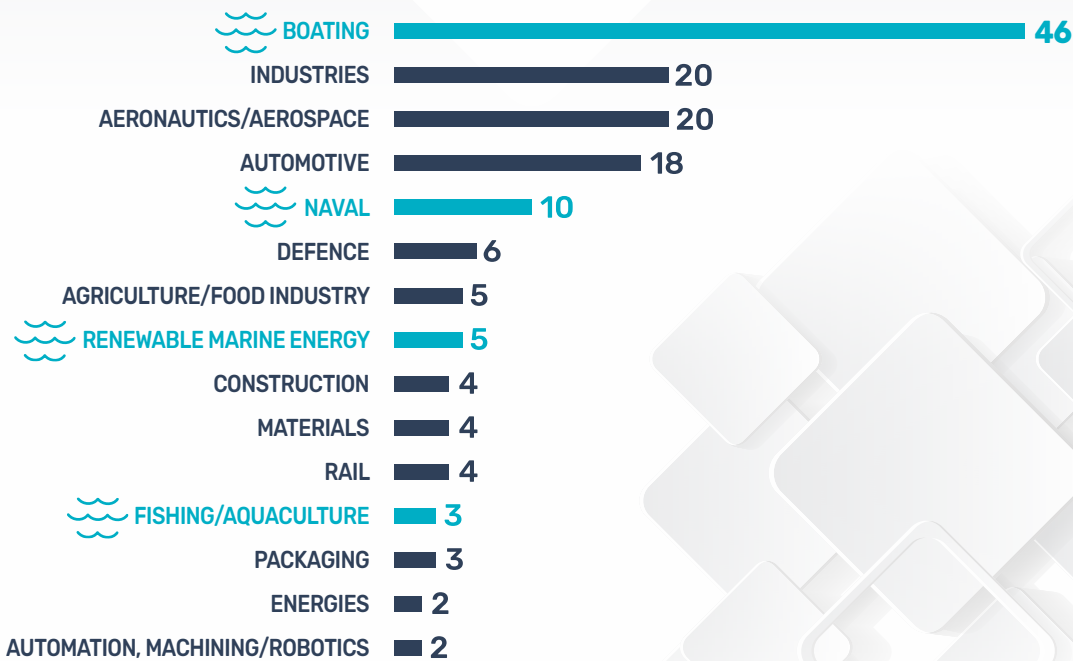


High performance  
(carbon, aramid and kevlar)  
**69% of companies**

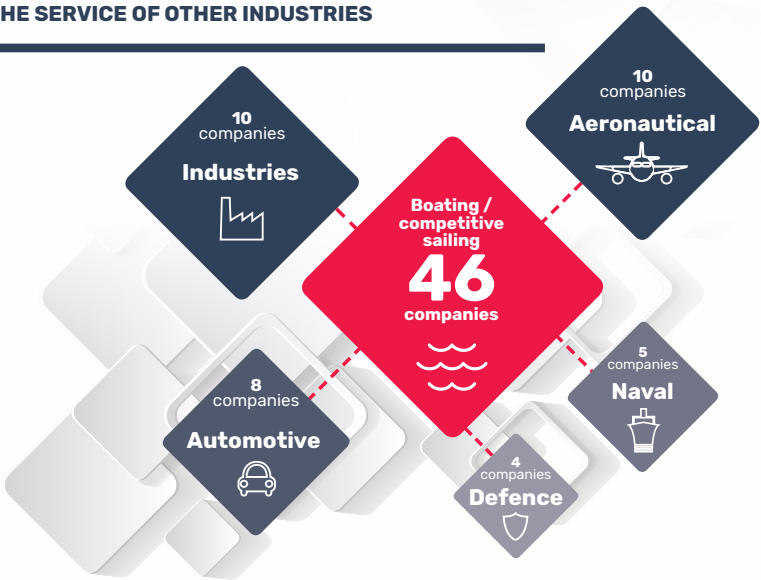
# IN BRITTANY, MARITIME AND COMPOSITES NAVIGATE TOGETHER



**MAIN MARKETS IN WHICH COMPOSITES COMPANIES ARE PRESENT**  
(SEVERAL RESPONSES POSSIBLE, BY NUMBER OF MENTIONS)



**BOATING AND COMPETITIVE SAILING,  
EXPERTISE AT THE SERVICE OF OTHER INDUSTRIES**



**THE SECTOR  
INTERNATIONALLY**



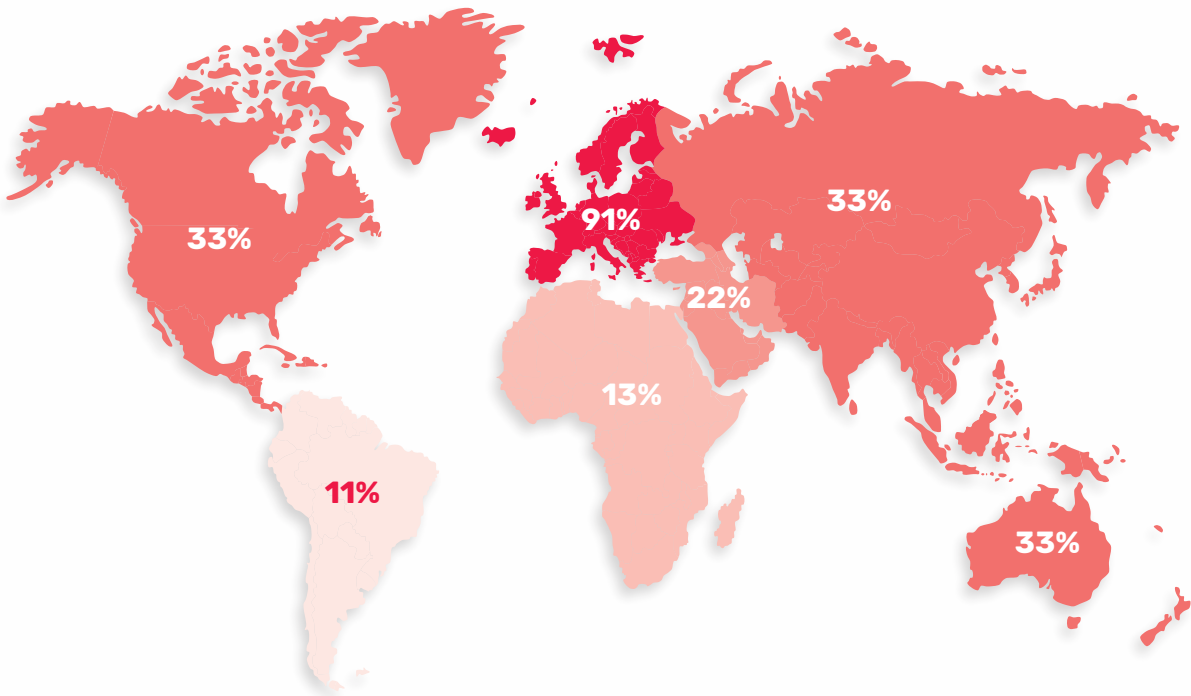
**45**  
companies  
sell abroad

or  
**60%**  
of actors

For  
**47%**

development of business  
internationally is  
**IMPORTANT  
TO A PRIORITY**

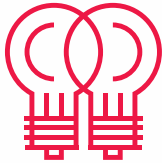
**PRESENCE ON THE 5 CONTINENTS (45 EXPORTING COMPANIES)**



R&D, ENVIRONMENTAL PRACTICES AND MANUFACTURING PROCESS, STRUCTURING ISSUES

58%  
of companies

HAVE A  
R&D BUDGET  
FOR THE  
COMPOSITES  
BUSINESS



6

COMPANIES

out of

10

have already  
worked with  
research  
laboratories  
on composites  
projects

Top 3 future  
challenges for  
company managers:

MANUFACTURING  
PROCESS

24%

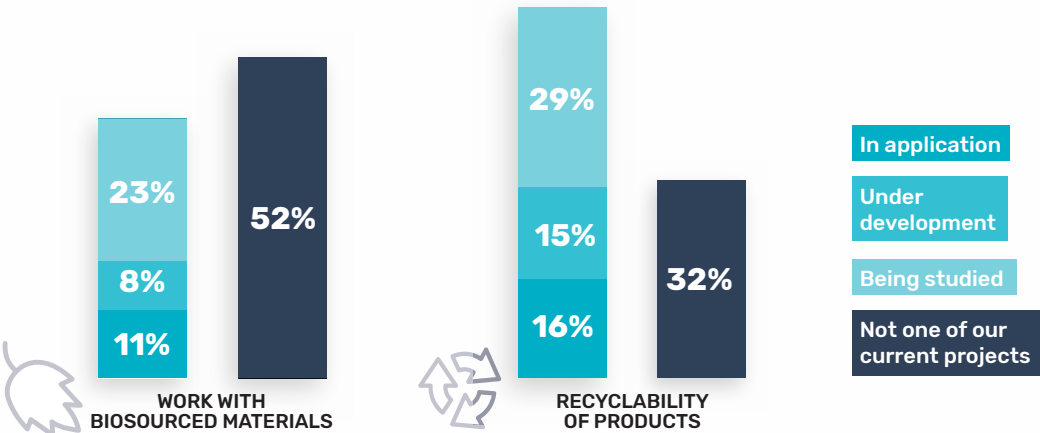
ECO-MATERIALS/  
RECYCLABILITY

41%

LEGISLATION AND  
TRAINING / RE-  
CRUITMENT

9.5%

TOWARDS MORE ENVIRONMENTALLY-FRIENDLY PRACTICES



## THIS STUDY WAS FINANCED BY

**BRETAGNE**  
DÉVELOPPEMENT  
INNOVATION



UNION EUROPÉENNE  
UNANIEZH EUROPA



L'Europe s'engage / Avec le Fonds européen  
en Bretagne / de développement régional

## AND CONDUCTED WITH THE SUPPORT OF



COMPOSITE BRETAGNE

This summary  
can be downloaded from  
[www.bdi.fr](http://www.bdi.fr)

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