

OPEN CASCADE TECHNOLOGY

IN RESEARCH & SCIENCE PUBLICATIONS

REPORT
2015 - Aug. 2022





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OCCT-BASED ARTICLES EXECUTIVE SUMMARY



55

countries

937

articles for
2015-Aug. 2022

614

organizations

TOP 5 APPLICATION AREAS



- Geometric modeling – 258
- Aerospace – 148
- Building & Construction – 78
- Computing methodologies – 57
- Nuclear – 57

475

universities

60

other
research
organizations

79

commercial
organizations

SUMMARY

We at Open Cascade would like to express gratitude to the scientists all over the world who address Open CASCADE Technology (OCCT) in their research projects!

Forecited data is based on the results of research articles analysis from scientific databases (Web of Science, ScienceDirect, Scopus, GoogleScholar).

NUMBER OF ARTICLES BY YEAR

100

2015

98

2016

109

2017

123

2018

119

2019

98

2020

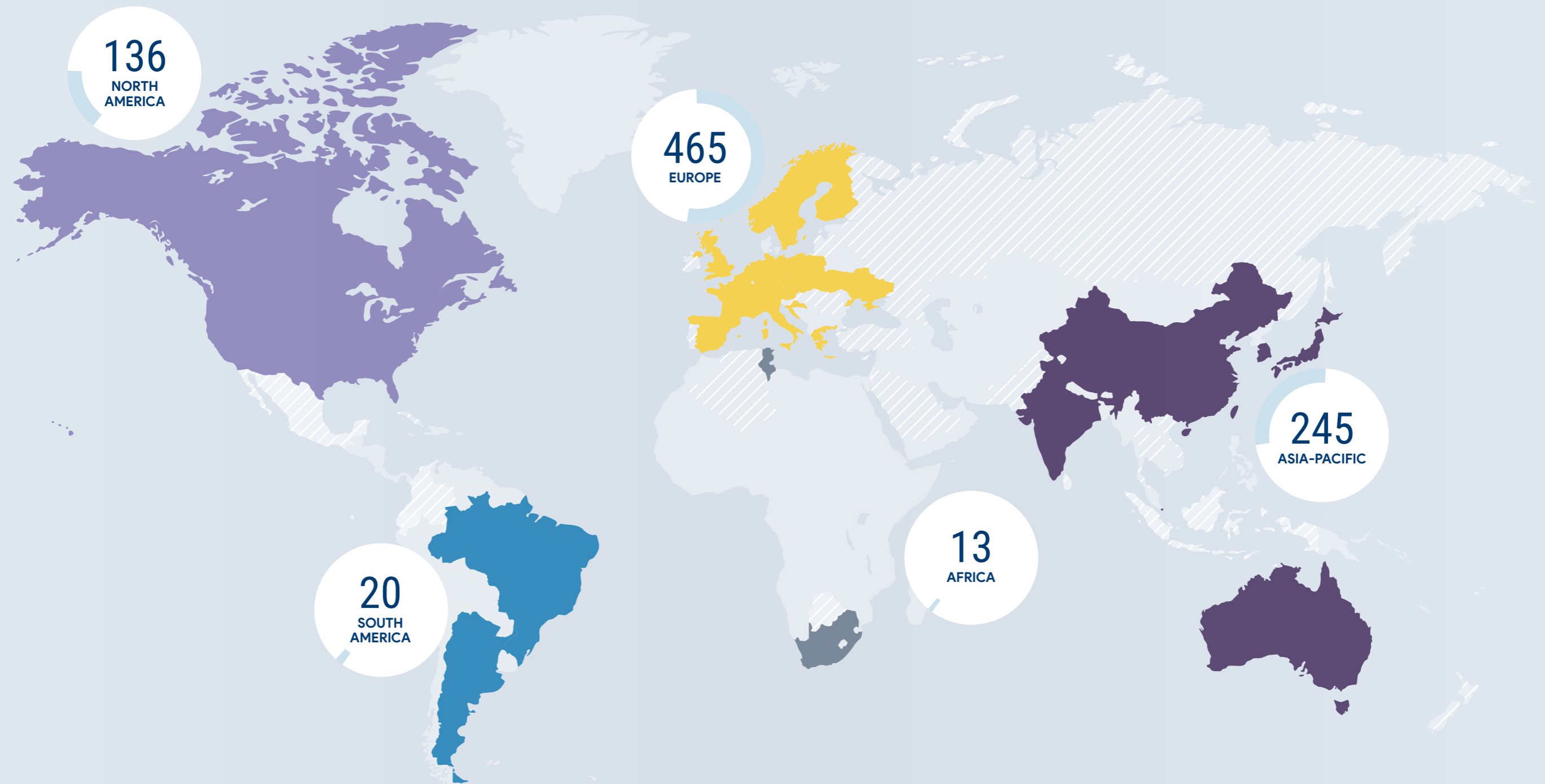
181

2021

108

2022

RESEARCH ARTICLES BY COUNTRY



NUMBER OF ARTICLES BY COUNTRY

- | | | | | |
|------------------------|--------------------|----------------------------------|--------------------|--------------------|
| 📍 Germany - 142 | 📍 Finland - 11 | 📍 Croatia - 5 | 📍 China - 143 | 📍 Tunisia - 6 |
| 📍 United Kingdom - 70 | 📍 Switzerland - 11 | 📍 Poland - 5 | 📍 South Korea - 51 | 📍 South Africa - 7 |
| 📍 France - 64 | 📍 Sweden - 9 | | 📍 India - 18 | |
| 📍 Italy - 47 | 📍 Greece - 8 | 📍 United States of America - 108 | 📍 Japan - 13 | 📍 Argentina - 12 |
| 📍 Spain - 38 | 📍 Austria - 12 | 📍 Canada - 28 | 📍 Australia - 8 | 📍 Brazil - 8 |
| 📍 the Netherlands - 18 | 📍 Norway - 7 | | 📍 Taiwan - 7 | |
| 📍 Belgium - 17 | 📍 Ukraine - 5 | | 📍 Singapore - 5 | |

OTHERS - 54

Mexico, Indonesia, Romania, Slovenia, Cyprus, Saudi Arabia, Turkey, Pakistan, Colombia, Ecuador, Jordan, Thailand, Hungary, Botswana, Algeria, Ireland, Vietnam, Russia, Malaysia, Israel, Lithuania, Cuba, Sri Lanka, New Zealand, Latvia, Portugal

RESEARCH ORGANIZATIONS BY COUNTRY. PART 1



RESEARCH ORGANIZATIONS BY COUNTRY. PART 2



ARTICLES BY APPLICATION AREA. PART 1



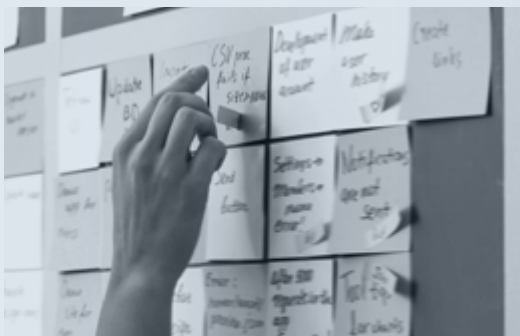
GEOMETRIC MODELING – 258



AEROSPACE – 148



BUILDING & CONSTRUCTION – 78



**COMPUTING
METHODOLOGIES – 57**












CAM – 57



MEDICINE – 46

ARTICLES BY APPLICATION AREA. PART 2

 NUCLEAR - 39	 PHYSICS - 32	 ADDITIVE MANUFACTURING - 22	 OTHERS - 20
 ROBOTICS - 39	 SHIPBUILDING - 18	 MECHANICS - 16	 AR & VR - 13
	 IT - 18	 ELECTRICAL ENGINEERING - 13	 ENERGY - 11
		 ENGINEERING - 11	 HYDRO-INFORMATICS - 10
		 AUTOMOTIVE - 11	 MILITARY - 6
		 STEEL CASTING - 5	 MANAGEMENT - 5
			 GEOLOGY - 4

OTHERS INCLUDE



WELDING



LASER



ARTIFICIAL INTELLIGENCE



ZOOLOGY



IOT



E-COMMERCE



DESIGN LANGUAGES



ASTRONOMY

MOST ACTIVE ORGANIZATIONS BY APPLICATION AREA

GEOMETRIC MODELING



AEROSPACE



BUILDING & CONSTRUCTION



ROBOTICS



3D CAM



NUCLEAR



COMPUTING METHODOLOGIES



MEDICINE



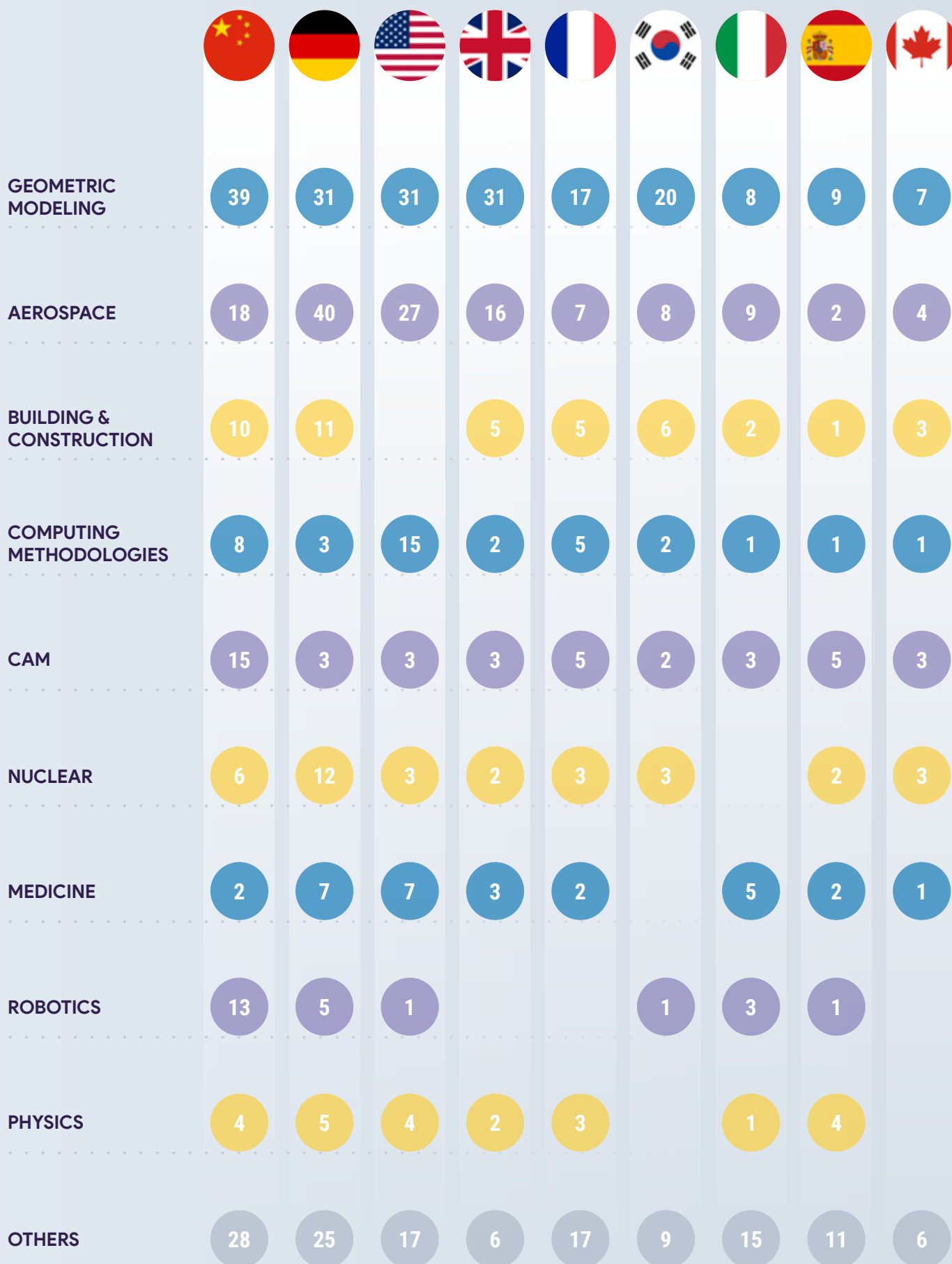
PHYSICS



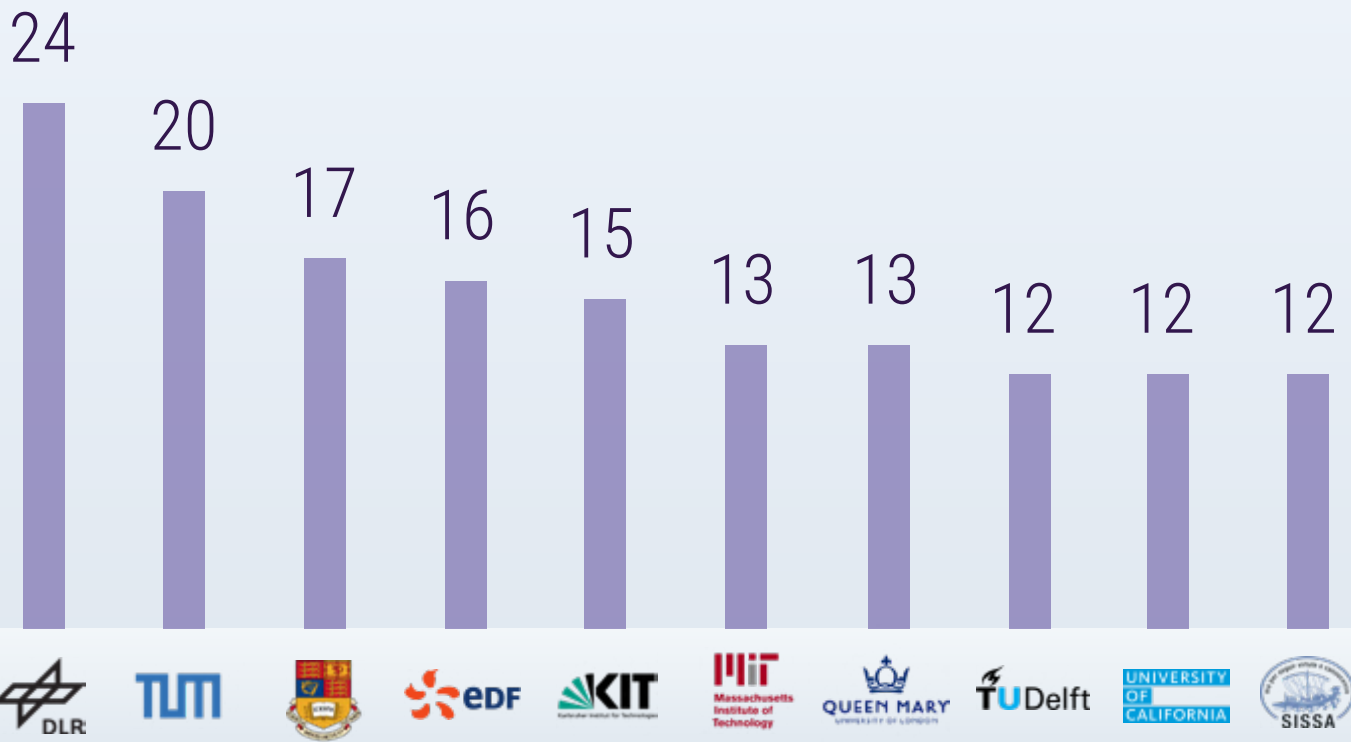
APPLICATION AREAS BY COUNTRY



APPLICATION AREAS BY COUNTRY



OCCT-BASED RESEARCH: TOP-15 ORGANIZATIONS



OCCT-BASED RESEARCH: COMMERCIAL COMPANIES



ABOUT US

Open CASCADE Technology (OCCT) is the only open-source full-scale 3D geometry library. Originally developed as an industrial CAD kernel, OCCT is widely used for the development of specialized programs dealing with the following engineering and mechanical domains: 3D modeling (CAD), manufacturing (CAM), numerical simulation (CAE), measurement equipment (CMM), and quality control (CAQ). Since its publication in 1999, OCCT has been successfully used in numerous projects from all industrial fields. It includes a set of C++ class libraries providing services for 3D surface and solid modeling, visualization, data exchange, and rapid application development. This report represents wider OCCT usage not only in commercial projects but also in academic domain.

Learn more about Open CASCADE Technology at dev.opencascade.org



Over the course of 20 years, Open Cascade company supports OCCT providing community with the opportunity to develop 3D CAD projects. Open Cascade is a software development company which is focused on digital transformation of industries through the use of 3D technologies. The company is a part of the Capgemini Engineering. Open Cascade offers a wide range of high-performance proprietary 3D software tools both open-source and commercial.

Learn more about Open Cascade at www.opencascade.com

