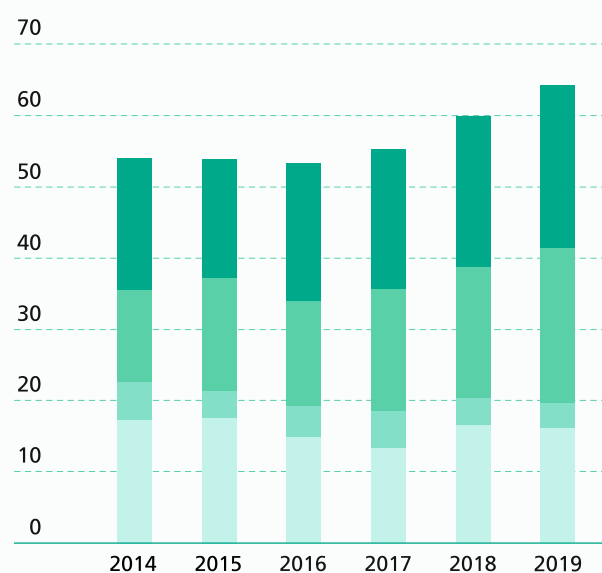


FRAUNHOFER IKTS IN FIGURES

FRAUNHOFER IKTS IN PROFILE

Revenue (in million euros) of Fraunhofer IKTS for the budget years 2014–2019

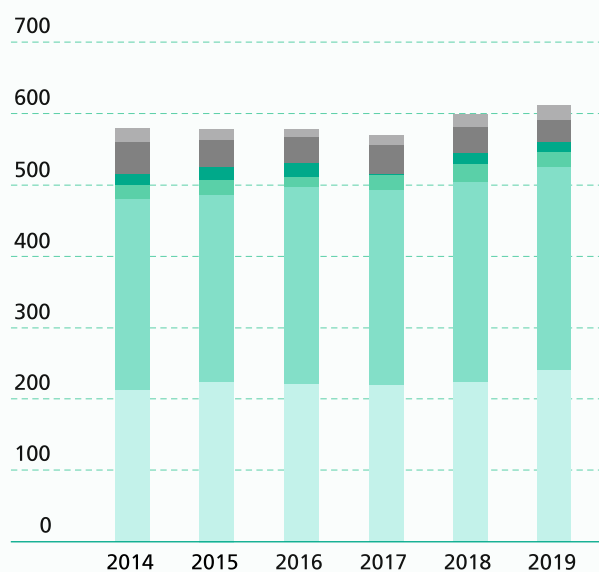


	2014	2015	2016	2017	2018	2019
Industrial revenue	18.6	16.3	19.6	19.6	21.2	22.9
Public-sector revenue	12.9	16.4	14.8	17.3	18.4	21.8
EU and other revenue	5.5	3.6	4.4	5.1	3.8	3.5
Institutional support	17.2	17.8	14.8	13.5	16.6	16.1
=	54.2	54.1	53.6	55.5	60.0	64.3

- Industrial revenue
- Public-sector revenue
- EU and other revenue
- Institutional support

Personnel developments at Fraunhofer IKTS

Number of employees 2014–2019, full-time equivalents, personnel structure on December 31 of each year



	2014	2015	2016	2017	2018	2019
Apprentices	19	15	11	14	18	20
Student workers, trainees, undergraduate students	44	38	36	40	36	32
Part-time and contract workers	16	18	19	1	16	13
PhD candidates	20	21	15	21	25	22
Employees with university degrees and technicians	267	260	276	273	280	284
Scientists	214	223	220	220	224	241
=	580	575	577	569	599	612

- Apprentices
- Student workers, trainees, undergraduate students
- Part-time and contract workers
- PhD candidates
- Employees with university degrees and technicians
- Scientists



Budget and income

With 64.3 million euros, the total budget exceeds the previous year's level by 4.2 million euros. Of that budget, 6.1 million euros was invested in equipment. All in all, 48.2 million euros of external income was obtained, of which 22.9 million came directly from the industry. With 3.7 million euros volume, the Saxon and Thuringia economy was particularly committed.

Industrial projects to the value of 6.4 million euros were commissioned from abroad. The main part of this in 2019 came from China, Austria and the US, which together make up half of the income from outside Germany. Currently, only 2 % of the income must be considered to be affected by Brexit. A positive development is that the funding of projects by the States has increased in Thuringia (0.8 million euros) as well as in Saxony (3.6 million euros). All in all, the various States support projects with a volume of 5.2 million euros. The share of the EU project volume was 1.6 million euros, somewhat below expectations. Acquisition efforts in this area will be stepped up in 2020. New constellations will arise in particular thanks to integrating the Forchheim site. Required administrative restructuring increases the pertaining organizational effort. The disparate costing approaches applied by the various funding bodies remain a challenge. These disparities lead to insecurity when determining billable costs and financial planning. Decentralizing administrative tasks combined with the Fraunhofer-wide introduction of the SAP ERP system will be very challenging in 2020. Thankfully, 2019 was spent preparing for these challenges.

Buildings and infrastructure were developed and expanded across all sites, with various construction projects supported extensively by the Free States of Saxony and Thuringia as well as the State of Lower Saxony.

Human resources development

A total of 754 staff members work at the three sites. The institute's family-friendly structure allows many young women and men to work part-time if they wish. For increased comparability, the different groups are represented as full-time equivalents in the illustration. The number of scientists has increased by 18 positions and is now at 241. Doctoral theses continue to be written by employees in the context of PhD positions focused on a particular area, as well as in the context of project-related activities close to industry.

We are happy to report that the number of apprentices has increased by another two positions and now stands at 20. For the first time, Fraunhofer IKTS also provides professional training for IT specialists. Planning the development of our staff is one major area of human resources work. Systematically developing our colleagues and creating the required plans and approaches to further education are a main objective for the institute's directors. We strive to consistently support personal career goals. Fraunhofer IKTS as an employer remains well positioned in the marketplace.

Expanding the infrastructure

Based on the significant growth in nearly all areas, more than one million euros has been invested so far into expanding at both sites in Dresden. In addition to extensive conversions to improve fire safety, the lab area was also expanded. At the Dresden-Klotzche site alone, the added surface amounts to 330 square meters. Another 220 square meters was leased to house the "Technical electrolysis and geothermic" workgroup.

1 Management of IKTS, f.l.t.r.: Prof. Ingolf Voigt, Dr. Christian Wunderlich, Prof. Alexander Michaelis, Dr. Michael Zins and Prof. Michael Stelzer.

Combining different additive manufacturing processes in Dresden will lead to a unique demonstration laboratory with various technologies. This will give manufacturers and users the option to have oxide and non-oxide ceramic prototypes made and tested with application-oriented methods. New process technology is due to be presented in autumn 2020.

The construction of the pilot center for powder synthesis and extrusion has started at the Hermsdorf site. It will be completed in the second half of 2020. The plants and machines in the pilot center will be equipped such that the digital production of ceramic components becomes possible. Among other things, machines for shaping will be equipped with the latest sensor technology, providing unprecedented insight into process details. Also, methods are being developed to combine various sensor data in real time to provide continuous quality monitoring and process control. The building provides tailored technical solutions for separating different materials, for gas and dust extraction as well as waste water treatment. Two cutting-edge labs, six technical centers as well as office spaces and storage areas will be housed on 583 square meters surface.