What technologies are involved?

- **Intraocular lenses (IOL)**: 1,323 (44%)
- Artificial silicon retina (ASR)/retinal prostheses: 654 (22%)
- Smart eyewear: 340 (11%)
- Cortical implants: 293 (10%)
- Augmented reality (AR) devices: 236 (8%)
- Telescopic lenses: 114 (4%)
- Artificial eye: 100 (3%)
- Hand wearables: 51 (2%)
- Virtual reality (VR) devices: 49 (2%)
- Artificial iris: 20 (1%)

Which are the fastest growing technologies?

Filings related to intraocular lenses (IOL) with sensors increased by an average of 48% between 2013 and 2017.

In 2013–2017, the average annual growth rate was 38% for filings related to augmented reality (AR) devices, and 35% both for artificial silicon retina (ASR)/retinal prostheses and smart eyewear.

Who is filing?

- **Applicant sector**
  - **Academia**: 24%
  - **Individuals**: 16%
  - **Corporate**: 58%

Top patent applicants

- **Second Sight Medical (U.S.)**: 223
- S. Fyodorov Eye Microsurgery Federal State Institution (Russian Federation): 159
- **Johnson & Johnson (U.S.)**: 130
- **Allergan (Ireland)**: 101
- **Alcon (Switzerland)**: 80

The top 10 applicants account for 27% of the domain’s patent families, indicating a market concentration to these players.