WHAT DOES A GOOD ENTRY LOOK LIKE?

The awards recognise projects rather than products – this is about active projects that use photonics technologies at their core. As such, entries are welcome from integrators, OEMs, academia and end users (rather than technology vendors directly), although you can nominate client projects that use your components.

What the Photonics Frontiers Award 2025 is looking for
Successful entries will demonstrate:

- ✔ Innovative use of photonics: a clear application of photonic technology to solve a specific problem.
- ✔ Tangible impact: measurable improvements or changes for end users.
- ✔ Growth potential: the ability to unlock new markets or sectors for photonics.
- ✔ Credible evidence: supporting documentation, images, and testimonials that showcase live projects – this active technology must be in use outside an R&D environment, with that application beginning in the past 18 to 24 months.
- ✔ High-quality submissions: detailed, well-written entries that align with the criteria.

In the interests of sharing a good example...
Here is one we recently received.

Please supply a High-Level Summary.
The quality of the production lines of **ITEM** is a very important factor for many applications and products based on them. One of the most important measurements that affect the quality of the **ITEM** is the width of the side physical area. The current measurement procedure is based on traditional methods like calibers or customised go-no-go structures. The above methods have disadvantages such as human factors and measurement tolerances. The result could be underestimated or overestimated and affects the total production line by 'scrapping' good parts or 'passing' bad parts. One more important disadvantage is also the time-consuming procedure of measurement. One person must be dedicated to this job and has to measure many points per part in order to reach a decision.

What makes your project stand out as a strong candidate?
The **TECHNOLOGY** by **COMPANY** is a totally automated procedure for **ITEM** that is based on picture processing and artificial intelligence. The user has a very comfortable computer interface and a mechanical housing. The user customises and calibrates the system once and, then, by placing a part in the measurement device has the information on the screen about the quality of the **ITEM** by a simple information 'Passed' Or 'Failed'.

What specific problem does your project address?
The majority of **MARKET AREA** are using this **ITEM**. In order to be appropriate for its task, **ITEM** must have specific inner and outer thickness on both sides of circular shape that appears on top and bottom of the plant. This procedure must be done by very experienced personnel that measure with a vernier caliper as many points as possible on a circular surface. **COMPANY** provides an automatic machine vision solution that annihilates the time that is needed for measurements. **COMPANY**

Why enter the Photonics Frontiers Award 2025?

Winning a Photonics Frontiers Award brings more than just recognition.

It's a chance to:
- Showcase a project to a global audience of industry leaders and innovators.
- Gain credibility with acknowledgment from a respected, independent judging panel.
- Open doors to new collaborations, market opportunities, and industry visibility.
- Highlight the power of photonics in solving pressing problems and driving growth.

by using a high resolution camera with the **TECHNOLOGY** combined with very sophisticated software provides all the **ITEM** measurement data to the end user, as well as the message of fail or pass for the specific application. So now the measurements are made easy and extremely fast

How does your project use photonic technology to solve this problem?

Considering machine vision as a strong part of photonic technology, the project is based on these technologies, as well as on some basic image processing algorithms. The project is using a **TECHNOLOGY** combined with the appropriate **TECHNOLOGY.** The lighting in the mechanical housing is carefully studied in order to minimise the unnecessary reflections that affect the image on the detector. All of the above are considered with a sophisticated algorithm that processes the input image and extracts the result.

What previously unidentified improvement or change does your project bring to the user?

The previous approach for this problem was to use a vernier caliper and carefully measure some sampling points around the front and back surface of the **ITEM**. The user decides if the **ITEM** is good or bad. Another approach is a very big machine that can make the measurements (with many others). The problem with these systems is that they are expensive for small producers and difficult to control by workers. We developed a very small, modular and easy to use **TECHNOLOGY** that can be moved easily by hand, and can be transferred directly to any production site.

What opportunities does your project open up in new sectors, markets, or applications?

Thousands of small companies and producers of **ITEM** cannot take part in the **MARKET** – the high cost of keeping the quality of **ITEM** stable prevents this. With this **TECHNOLOGY**, we make the quality control easy and reachable by anyone – users can measure their production easily (two seconds per **ITEM**) so they can have a very fast decision of changes in order to improve or to provide the **ITEM** directly to the **MARKET** manufacturer.

Who are the key beneficiaries or target users of this project?

The key beneficiaries are the thousands of small companies in the world that produce **ITEM** and, with this **TECHNOLOGY**, they can expand their selling capabilities in the **MARKET**.

Describe the current status of the project

The project is ready and tested for the basic variant. **COMPANY 2** is using this, we have orders for more and are about to start marketing an upgrade.

> This entry clearly defines the issue the technology is trying to resolve and gives good weighting to the detail of the problem and how the technology achieves it.

> Please encourage any clients or contacts you have who are using innovative photonics technology to solve problems or improve processes or outcomes to enter.

How to enter

The deadline for submissions is March 15th

Submitting a project is simple:

1. Visit https://tinyurl.com/5n6c2c3b, or go to www.electrooptics.com for more details
2. Complete the entry form and upload supporting materials.
3. Await confirmation and updates from our team.
4. Don't miss this opportunity to celebrate the application of photonics and gain well-deserved recognition for innovative projects.
5. Enter now and be part of the Photonics Frontiers Award 2025 – where innovation meets impact.
6. If you have any queries, please contact *rachel.marston@europascience.com*.