

WHAT DOES A GOOD ENTRY LOOK LIKE?

PHOTONICS
FRONTIERS
AWARD 2025

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 calipers 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.



TIPS AND FAQs

My customers/projects are under NDAs with us – how can we enter a project?

There are a few ways around this. You can ask your customer (or the end user themselves) to enter directly – that way, they choose what to disclose and what they may choose to keep confidential.

Alternatively, you can leave end customer names out of the entry entirely and talk about the wider problem the project addresses (e.g. moisture measurement in cheese production).

Avoid generic solutions and unproven technologies

We're looking for projects that solve specific problems, so 'improved measurement accuracy' is not good enough, but 'improved measurement accuracy in semiconductor wafer inspection' is better; best of all is 'how improved measurement accuracy for [NAMED WAFER MANUFACTURER] enabled £2m reduction in wastage.'

Similarly, entries that talk about technologies that 'could do this or that' will be rejected. The technology must be out there, solving a problem, and ideally linked to a specific project or market sector.

How is this different from other awards, such as the Prism Awards or Laser World of Photonics Innovation Award?

Those awards are about products – and in some cases, just prototype products. For the most part, they are for photonics component vendors, such as those that would exhibit at Laser World of Photonics or Photonics West.

This award is about projects – i.e. where those products end up and what they actually achieve for the end user. As a result, we encourage the OEMs/integrators/end users to be the entrants, rather than vendors, since it is the integrator taking the vendor's product (indeed, often multiple products from multiple vendors) and turning it into a specific solution for an end user.

I'm a vendor – how do I benefit from my customers entering the award?

All shortlisted projects will provide excellent publicity opportunities for you to shout about the fact you were a supplier to an award-winning/shortlisted entry, thereby demonstrating you are a supplier of choice in that particular sector.

How do I know which category to enter?

We've provided a full explanation of how we're defining each category [here](#).

Is there an entry fee?

No, entries are free of charge.

Is there a prize?

There will be a trophy for the overall winner, plus certificates and publicity opportunities for all shortlisted entries. The winner will be invited to an exclusive drinks reception alongside our Photonics100 alumni at **Laser World of Photonics 2025** in Munich, to be held on **Wednesday 25 June from 4.30pm**.

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

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.

The deadline for submissions is **March 15th**