

CE for Makers

## **Smänder.com makes CE compliance for makers and small businesses as easy as online shopping.**

The worst thing you can do is just ignore the legal obligations you have when putting a product on the market. For Europeans this usually means dealing with CE, the European Declaration of Conformity. CE is not only relevant for EU member states but also for countries like Norway, Switzerland, Iceland and Turkey and lately (again) the United Kingdom who all accept CE as a way of certifying products for safety.

Safety is the whole point of CE. It says nothing about product quality, but if your product is safe for the target customer and fulfills a minimum standard of safety levels set by various directives and regulations on EU and national level.

While it seems quite easy to just follow laws in your day to day life.

Product compliance is an often overwhelming topic for those dealing with it on a professional level and even more for those coming in contact with it for the first time.

Electronics enthusiasts tend to just think of electromagnetic compatibility and RED (radio equipment directive) in regards to CE for their projects, but CE is a much broader more faceted system that is not as straightforward to navigate as expected.

Achieving a CE certification for a product is a multi step process that does not necessarily have to include laboratories or consultants, you can actually do it all on your own.

But should you?

### **How do you even know what rules apply to your product?**

### **How are they influencing each other and the process you need to conduct for a given product?**

**The Answer is always „it depends“.**

Most of the directives and regulations were written with big companies in mind and are deeply intertwined with each other and adjacent laws.

There is a whole industry of consultants and specialized services dealing with these questions for each product individually, giving advice to the manufacturers and preparing data for them in order to complete the process. Because the crucial thing to understand is that the manufacturer always stays responsible for the product and its assessment, no consultant or laboratory can take over this burden (apart from a very niche edge case that almost never gets utilized), but they help you reach the goal with expertise and experience.

Hiring a CE consultant to do the product-assessment (which is the first and most important step in every certification cycle) can be a costly endeavour. You are paying for an expert to many hours digging into every detail of your product and applicable regulations. Conducting multiple rounds of risk assessment and listing out deliverables you need to add to the required documentation to get towards a compliant product.

With a completed assessment you have only taken the first but hardest hurdle. Now it's on you as Manufacturer to complete the process by conducting the listed tests (maybe with a laboratory if required), collect technical information, devise and describe procedures for quality control and recalls etc. and finally fill out and personally sign a declaration of conformity. Also the user manual is part of these docs btw.

Quite the workload for a Maker just trying to sell a few learn to solder kits, but ignoring these obligations can earn you very high fines to an existence threatening level.

### **So how can this problem be solved for the common electronics enthusiast?**

The hardest step of the CE certification is the actual product assessment. This is where people usually run into a wall or make costly mistakes when trying to find out which directives and regulations apply.-

Smander.com is currently developing a community based program to provide Makers with the needed information and documents to complete their obligations.

By streamlining the process, focussing in exactly on the typical range of maker made products and batch processing of the data, the costs can be significantly reduced if enough people get the Assessments done at once.

The working title for this program is „GetSmandered“.

For each round a number of boundaries will be set( f.e.: maximum present voltages, size limits, no medical devices, only open source hardware, company size, etc.).

Interested Makers apply to get their product certified on the website by filling out a form.

Applications will be collected until a set cutoff date similar to how TinyTapeout works.

If the product fits the set boundaries, they will be asked to submit specific information and send in the physical product for the assessment.

Once all Assessments of a given round have been conducted, the applicants will get a number of documents for the next steps.

These include the product assessment and risk analysis in short and concise human readable form, instead of the usual thick bulk of legal lingo, for their specific product.

An easy to understand Sheet with the required steps they need to take (tests to conduct, data to provide, changes to make) and a link to upload these once completed.

And once all tasks have been concluded all Participants will then get all the data packed in a compliant form as the required internal and external documentation.

The only thing left to do is sign the declaration of conformity and make a hard copy for the archive.

Which means at that point the product is ready to be released onto the european market.

The price is not set in stone yet, but Smander is aiming to cut the typical cost in fifth!

**Once the first round of „GetSmandered“ is starting, Makers can apply for free, and the cost for the Assessment is transparent and fixed once the cutoff date expires and the amount of eligible participants is clear.**

**The more projects „get smandered“ at once the more savings can be made.**

The costs for individual EMC tests and alike can of course not be included, as these will vary widely across products but Smander is working on providing optional pre-compliance checks so you can avoid failed laboratory tests, or even do the tests yourself. The manufacturer is always in control of costs, risks and decisions this way.

Same applies to translations of user manuals which are mandated in many countries or additional documents needed for some product categories.

Once you divide the money spent on the certification by the units you sell in your first batch, it becomes clear that a slightly lower margin on the first few products sold is more than worth it for safety and ease of mind.

Smander is currently focussing on the actual roadblock of CE- Assessment but has the goal to become a turnkey solution for full product compliance including testing and documentation.

The head behind the idea is Clem „mayermakes“ Mayer, Host of Youtube electronics show Element14presents, and recently certified CE product coordinator, who decided to change the status quo after having to deal with these hurdles for his own and client products. Clem gave a lightning talk on CE for Makers at Hackaday Europe 2024 in Berlin, and will be doing a longer deep dive talk this year at Maker Faire Hanover, Germany in August. But we know from experience he will gladly nerd out about this topic with you if you meet him on the street as well!