

Curb impacts of AI on programming to maintain EU sovereignty

Let's **assume** that LLMs **actually speed up programming** and that the EU cannot catch up to AI coding tools from the US. If this is true, what can we do in the EU to **close the gap** enough that efficiency gains from LLMs stay lower than their compute cost?

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1 Practical steps for sovereignty

Practical steps at moderate cost:¹

- Improve copyleft **compiler error messages** (work on gcc?)
- Create more **linters** (SonarQube Rules integration?)
- Provide **templates for infrastructure setup** (with proxmox?)
- Package and improve searchable **documentation** (via texinfo?)²
- Improve **discoverability of documentation** akin to IntelliJ for Java and [Emacs](#) for elisp, realized for most languages and frameworks.

¹compared to the 1 trillion VC funding for US-based AI companies and who knows how much for Chinese ones.

²Improve search in documentation and add more (first-party) examples. Piecing together info is where most people give up. – *thanks to libewa*.
Since I discovered local info lookup via texinfo for writing Guile Scheme, I wish that were available for every tool.

- Support Free Software **maintainers** to foster infrastructure maintenance skills in the EU. Finance the [Sovereign Tech Fund](#). If you know a project by heart, you can fix it much more easily.
- Work towards more **standardized interfaces** between software/service components. Require interface contracts representing the common denominator between different services, leaving specific functionality to dedicated endpoints. – *thanks to Elias Probst.*³
- Maintain reliable **interface generation** from specifications for different languages.
- **De-bloat** our software stacks. Establishing development practices, OpenSource frameworks, etc. to reduce overhead. – *thanks to Elias Probst.*

2 Why we need these steps

What if the [worries by The Morpheus hold true](#) and *the EU cannot become competitive in LLM development*, because the US and China already monopolized LLM development skill and infrastructure advantages? Which steps can allow the EU—at moderate cost—to limit the impact of LLMs so our software development stays competitive?

I asked this question [in Mastodon](#) and now turned the question and the answers into this article. If you want to contribute, please answer the question there.

AI may still fail as a bursting bubble and take down large parts of the US economy with it, but if it does not, the EU should be prepared to curb its impact — best by already having taken steps like the ones shown here.

And if the AI bubble does not burst, these steps will still help software development in the EU. Money put into them never goes to waste (it also helps the ones who use LLMs for coding, just not as much), so I think that the EU should support these steps with at least 1% of the VC funding AI companies receive.

3 How to do it?

- Increase funding of the [nlnet foundation](#) via EU Horizon 2020 and followups.
- Increase funding of the [Sovereign Tech Agency](#).
- Adhere to and require [Public Money Public Code](#).
- Fund the [Free Software Foundation Europe](#).⁴

³OpenAPI in the web-world is something in the right direction, but I feel like this is also sorely needed on many other levels. – *thanks to Elias Probst.*

⁴To the FSFE you can also donate as private person.