

## Sponsorship Proposal

#### February, 2017

The Free and Open Source Silicon Foundation fosters open source <u>semiconductor design</u>. The Foundation is working toward a mature open source digital design ecosystem, the benefits of which include faster time to market with better tested, open semiconductor designs and ultimately cheaper and more secure electronics, all the while enabling an industry of services companies - the "Red Hats" of the semiconductor world".

Inspired by the success of open source software, the Foundation will help bring about IP and tools of comparable quality to proprietary offerings, and which are developed according to an open source model by a highly collaborative and inclusive community.

The FOSSi Foundation will address the issues the field currently faces; fragmentation, legal uncertainty, design quality, and high barriers to entry.

We are asking for sponsors to help us work towards our goals throughout 2017 and beyond, and ask that you consider sponsoring or donating to the Foundation.

Thank you in advance for your interest and support.

If you are interested or have questions please contact us at sponsoring@fossi-foundation.org

#### What is the FOSSi Foundation?

The Free and Open Source Silicon (<u>FOSSi</u>) Foundation is a <u>not-for-profit</u>, <u>asset-locked</u> <u>community interest company (C.I.C)</u> headquartered in the UK, dedicated to furthering the open source <u>digital design</u> field. This is a relatively new open source field encompassing electronic systems engineering, specifically digital semiconductor (silicon chip) designs and design tools.

The Foundation's directors have been involved in the open source digital design arena for nearly a decade. They bring expertise through roles in academic research and semiconductor companies from startups to industry giants.

## Who is the Foundation's work targeted at?

The Foundation's activities address the audience of hundreds of thousands of digital design and verification engineers from beginners to industry veterans, involved as hobbyists, through academia and working in the semiconductor industry. The Foundation recognizes that comparatively high barriers to entry exist for this discipline. The goal of is to lower these barriers of entry for all comers, encouraging contribution and collaboration on designs, tools and documentation to the benefit of all.

#### What does the FOSSi Foundation aim to achieve?

The Foundation's goals include improving the accessibility, quality and rate of reuse of open source digital design IP cores, systems and EDA tools among hobbyists, academia and industry. The economic benefits for a vibrant open source digital design ecosystem are analogous to those enjoyed by the open source software world, and we are working towards achieving a similar level of openness for the fundamental building block of modern digital electronics: the IP core.

The Foundation's work aims to coalesce and grow a comparatively fragmented and underserved open source community and will focus its efforts on increasing collaboration and communication within.

# Why we are seeking funding; the Foundation's activities in 2017

The year ahead will build upon a productive 2016 which, in our first full year after incorporation, saw us launch our community hub, host our annual conference and stir up a great deal of interest amongst the community. We still have much to do, though.

The FOSSi Foundation has modest goals for the short-to-medium term. They are; first to complete development of an online community hub providing an IP and project digest and curating a library of open standards and best-practice design guides, second is to resolve the uncertainty surrounding the licensing of open source IP, and third is to help create a greater sense of community and increase participation and collaboration by coordinating regional conferences, design contests and discussion forums.

In conjunction with our primary goals for the year, the Foundation will continue to grow its body of advisors through inviting key community members to become Foundation members. We will ask these people to help advise our activities and generally support any initiatives which we spin up as necessary.

The funding we attract through sponsorship and donations will go towards achieving these goals set out in further detail in the following pages. We will ensure our sponsors and donors are recognized commensurate to their support of our work towards our goals. Sponsorship benefits details are detailed below. Please note that the FOSSi Foundation's directors and members are currently all volunteers. The following sections outline these three main goals in more detail.

#### LibreCores

This is a community hub which we launched in October 2016 at our annual conference. LibreCores.org superseeds the now mostly defunct OpenCores.org. Due to the disinterest of the latter's current owner in any collaboration or redevelopment of the site the Foundation has devised a successor, incorporating the lessons learnt from OpenCores and ensuring it is the right resources for a contemporary open source community.

#### LibreCores objectives are:

- serve as the go-to digest of open source IP core and system projects, EDA tools and communities, with features such as quality and usability metrics
- curate best-practice guides for development, reuse, testing and documentation of cores and systems, all of which we feel are essential to help guide newcomers to the field and ensure a reasonable quality of contributions from all.
- champion the development and adoption of open standards.
- act as a community hub by hosting mailing lists, sponsoring competitions such as bug bounties, fostering content generation such a project updates, editorial pieces and aggregation of related blogs and articles from around the globe.

LibreCores.org's development is ongoing and we are seeking funding for the hiring of part-time developers to implement features on the site. We also plan to fund content generation, such as best-practice guidelines, and IP bug bounties.



#### **HDL Licensing**

Free and open source software (FOSS) enjoys a far better developed and understood licensing landscape in comparison to open source hardware description language (HDL) works. FOSS licenses have undergone decades of review and have been tested in courts. Broadly, a developer can choose from three categories of licenses to ensure a design remains *open* once it is incorporated elsewhere. These three types of license are; strongly reciprocal/copyleft (you use my design in yours, your entire design is subject to my license, often requiring it to be entirely open sourced), weakly reciprocal (you use my design in yours, I acknowledge a boundary where my design ends, just open source any modifications to my design) and permissive (there are no requirements on the user). Given no specific licenses applicable to HDL designs, open source HDL designs have long used FOSS licenses to convey the requirements on their works.

This presents a problem in that software is not completely analogous to HDL, and as such it's not clear whether the language and mechanisms used by software licenses are appropriate at all to HDL source, for example the process of turning software into an executable application shares some conceptual processes with those of turning HDL into a silicon chip, but they are worlds apart in other ways. The FOSSi site hosts a summary of the vexed issue.

The lack of clarity on the implications of copyleft licenses on HDL source are a cause for concern for any commercial semiconductor firm. The uncertainty quickly equates to a no-go for any use of, or collaboration with open source digital design projects. A symbiotic relationship between industry and the open source digital design community is essential for the field to reach its full potential in terms of commercial viability and design quality.

FOSSi would like to see this HDL licensing question answered, much like it has been in the software domain more than two decades ago. The Foundation will create a committee to address licensing issues and its first goal will be to deliver a set of licenses, one each of the three degrees of permissiveness mentioned. **Funding is required to hire the requisite legal minds to help advise in this area.** 

## Community Engagement

It was recognised not long after the Foundation's directors first foray into the open source digital design community in the late 2000s, via the OpenRISC project, that there was a distinct lack of community events. A yearly OpenRISC developer and user conference, ORCONF, was begun to address this and soon found other communities and academic groups attending the conference to share their work, a very pleasant surprise for us all.

The most recent installment has grown to over 150 attendees from across the world who range from hobbyists building audio synthesiser circuits to academics researching cutting-edge low power computer architectures to semiconductor companies ranging from small startups to the likes of Intel and Qualcomm, all interested in and excited about the developments occurring in the open source digital design ecosystem and what it might mean for them. What results each year is a greater awareness of the progress in every corner of the community, and often precipitates collaborations amongst projects to everyone's benefit, and more often than not sees an uptick in use and contributions to projects across the board.

The conference is more diverse now than at its humble beginning of a set of talks in an office meeting room. This year the Foundation ran a student design contest with cash prizes, travel grants for presenters who are unable to fund intercontinental travel themselves, a demonstration hall full of more traditional open source hardware and more importantly endless debate on the state and future of open source digital design.

We see events like ORCONF as crucial to the advancement of the field, and seek to grow the event, ideally expanding its reach and hosting another event in the southern hemisphere earlier in the year. We aim to see it attracting more of the major projects to attend and present on their latest developments, while keeping the event open, inclusive and free to attend. To these ends, funding for the Foundation will go towards the costs incurred of running the event each year, and to the prizes and support we provide to presenters.

## Allocation of funding

Approximately 40% of our funding is spent on developing the LibreCores.org community, particularly its website. A further 40% goes towards the annual conference including grants to enable students to attend from abroad. The balance is being used to develop the legal frameworks for free and open source hardware development.

## Funding of a position within the Foundation

All roles within the Foundation's are currently performed on a volunteer basis. Should we attract sufficient funding we would like to have a paid position within the Foundation to help better coordinate our activities. Sponsorship levels and rewards are outlined below, but should funding this particular role be of interest do please say so.

## **Annual Sponsorship Packages**

The FOSSi Foundation offers annual sponsorship packages at the tiers outlined in the table below. Note that the tiers will be reviewed annually.

Annual Sponsorship Tier	Payment		
Platinum	€20,000 and up		
Gold	€10,000 and up		
Silver	er €5,000 and up		
Bronze	€1,000 and up		

#### Platinum Sponsorship

Sponsorship of the Foundation through our highest tier will be recognised through the inclusion of the sponsor's logo and/or name, sized most prominently, at the top of our sponsor lists on the FOSSi Foundation site, on FOSSi Foundation conference sites and banners at events, and on affiliated sites such as LibreCores.

The FOSSi Foundation will also provide tier Platinum Sponsors with a "FOSSi Foundation Platinum Sponsor" logo for use on their site, to recognise their contribution to open source digital design. The Foundation's directors will provide up to 10 hours private consultation over the year, and provide a personal quote for use by the sponsor on their site.

## **Gold Sponsorship**

Gold Sponsors of the Foundation will be recognised through the inclusion of the sponsor's logo, sized second most prominently in the second group of our sponsor lists on the FOSSi Foundation site and on affiliate sites such as LibreCores.

The FOSSi Foundation will also provide Gold Sponsors with a "FOSSi Foundation Sponsor" logo for use on their site, to recognise their contribution to open source digital design. The Foundation's directors will provide up to 5 hours private consultation over the year, and a custom quote for use by the sponsor on their site.

#### Silver Sponsorship

Silver Sponsors will be recognised through the inclusion of the sponsor's name only in sponsor lists on the FOSSi Foundation site and on affiliated sites such as LibreCores.

The FOSSi Foundation will also provide Silver Sponsors with a "FOSSi Foundation Sponsor" logo for use on their site, to recognise their contribution to open source digital design. The Foundation's directors will provide up to 2 hours private consultation over the year.

## **Bronze Sponsorship**

Bronze Sponsors will be recognised through the inclusion of the sponsor's name only on the FOSSi Foundation site.

The FOSSi Foundation will also provide tier 4 sponsors with a "FOSSi Foundation Sponsor" logo for use on their site, to recognise their contribution to open source digital design.

Tier	Sponsor name text	Sponsor logo	Listing tier*	Consult hours per annum**	Board quote	Supporter logo type
Platinum	yes	extra large	1	10	yes	platinum
Gold	yes	large	2	5	yes	standard
Silver	yes	medium	2	2	no	standard
Bronze	yes	none	3	-	no	standard

<sup>\*</sup> Listing tier 1 is on the FOSSi Foundation site, affiliate sites (eg. LibreCores.org) and as an official sponsor of our conferences, tier 2 is the Foundation site and affiliate sites, tier 3 is the Foundation site only

#### Sponsorship Renewals

The tiered sponsorships are for a duration of 12 months. We will request a renewal prior to the sponsorship period elapsing.

#### **Donations**

One-off donations to the Foundation may be made through the Paypal link on the FOSSi Foundation site. We will recognise one-off donations on a separate page.

#### In-Kind

Sponsorship and donation in-kind are also very welcome, with approval of the FOSSi Foundation fundraising committee. Please get in touch with us if you'd like to support us this way.

#### Contact

If you are interested or have questions please contact us at sponsoring@fossi-foundation.org

<sup>\*\*</sup> Consultation provided by the Foundation's directors can be used at the sponsor's discretion to advise on FOSSi engagement strategy, IP and design tools assistance.