



**The Free and Open Source  
Electronic Lab Notebook**

# Summary

- Why use an electronic lab notebook?
- Why use an open source solution?
- Why use eLabFTW?
- Why use Deltablot hosting?

# Why use an ELN?

Problem:

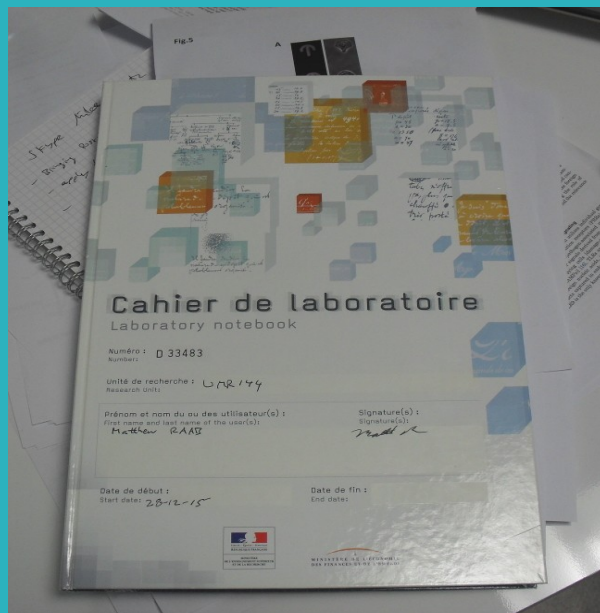
Need to store metadata of experiments (what, when, where, who, why, how)

# Why use an ELN?

Problem:

Need to store metadata of experiments (what, when, where, who, why, how)

Solution:

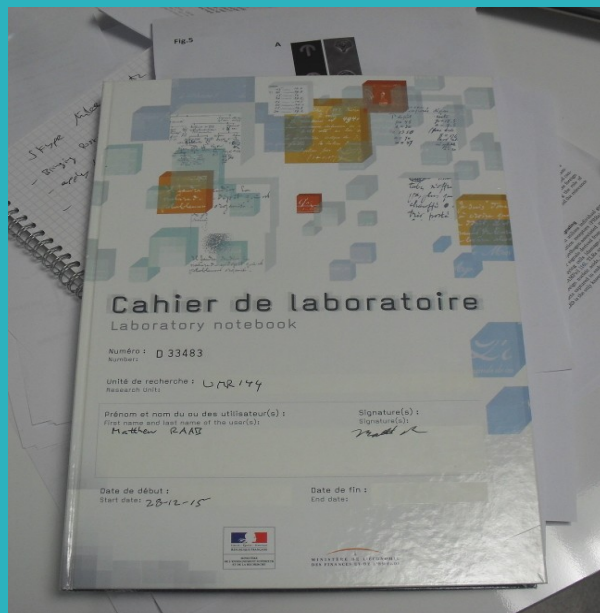


# Why use an ELN?

## Problem:

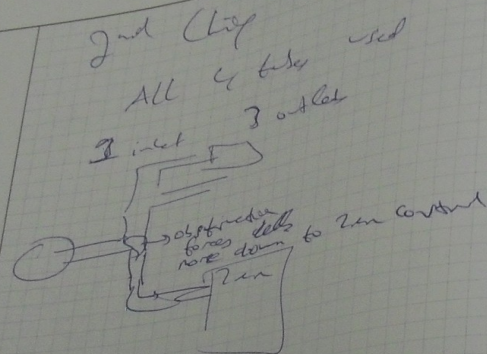
Need to store metadata of experiments (what, when, where, who, why, how)

## Solution:



## Limitations:

- Can be lost or burned
- No backups
- Often empty
- Not readable by others easily
- Can't search for something
- Can't input digital data



Essentially went  
to 2nd clip.

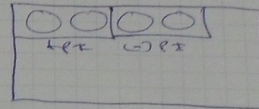
Raised to inside mixture for test,  
then every few min bring  
down to mix via stir bar

- Probs:
- ① cells not getting into  
tubes in outlets, I think  
they are stuck here
  - ② cells in LTR are  
leaking from RT?

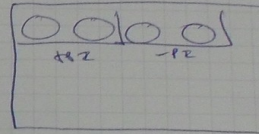
Hard to read

26 Aug 2016  
Testing Cell Death <sup>HB-9</sup> <sub>cells</sub>

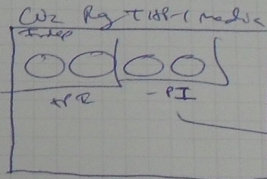
20K cells



37°C 5% CO<sub>2</sub>



37°C No CO<sub>2</sub>



250 No CO<sub>2</sub>

Add PR next day  
waited 15 min, then image  
dead cells

Fragile every 1-2 hrs, then test all  
3 in incubator O/N. I'm going  
again next day.

Conclusion → PR in media (2mg/ml)

Kills cells after a few hours.  
Not 1-2 hrs, but 3-5 hours

- CO<sub>2</sub> Free media improves  
things a bit, but RT really isn't  
so bad for cells



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No search



# Now you want to use an ELN

Problem:

Which one?

“Should we use the free solutions out there?”

“But if it’s free, it means we are the product, right?”

“Those privacy policies mention too many times the word “marketing” to my taste”

Real world example from a commercial ELN:

tracking email invitations you send; and otherwise supporting your use of the Site. We may use your personal data for target advertising toward you based on things such as region, gender, position, interests, goals, habits, etc. and in order to meet legal obligations.

# Now you want to use an ELN

Problem:

Which one?

“But should I give all my research results to a foreign company on which I have no control?”

“What happens if that company gets bought by a foreign consortium?”

“What happens to my data if that company closes”

# Now you want to use a free and open source ELN

Problem:

Which one?

Well, eLabFTW of course!

It's the most popular, versatile, modern, and secure ELN out there!\* ;)

\*source: me



# eLabFTW

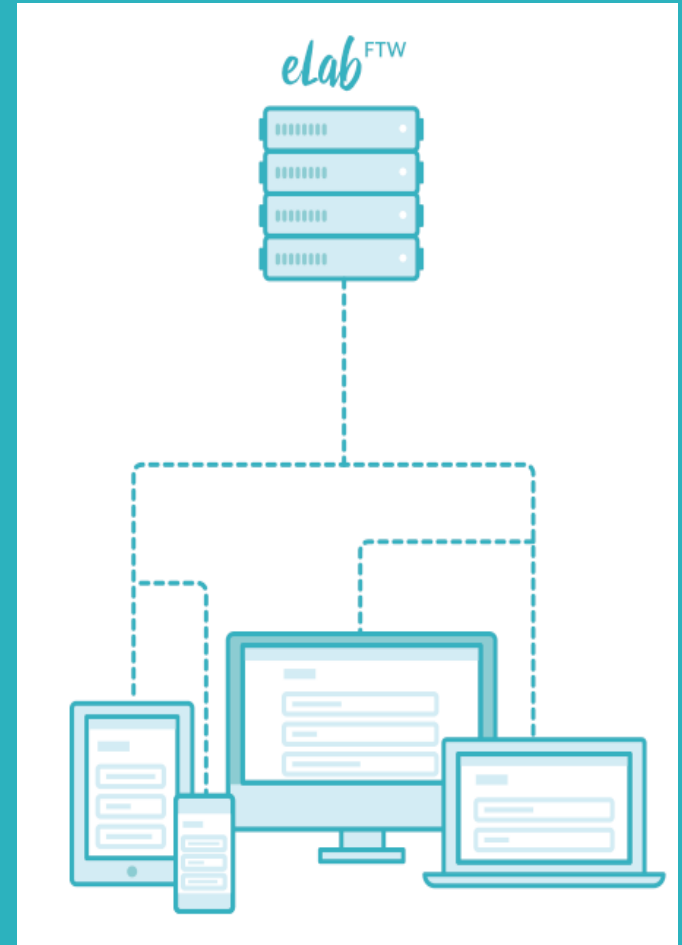
- Developed since 2012
- Free as in beer
- Free as in speech
- 500+ stars on GitHub
- Vibrant users community contributing to the software
- Modern codebase and interface
- Has all features you might expect and then some
- Secure
- Popular all over the world

# eLabFTW: key features

Web based

No client to install

Responsive design  
(works with all screen  
sizes)



# eLabFTW: key features

Completely Open Source

Access to the source code is immediate

Users contributions are welcome

The screenshot displays the GitHub repository for eLabFTW. At the top, the repository name 'elabftw / elabftw' is shown with statistics: 47 sponsors, 11 pull requests, 88 issues, 506 stars, and 133 forks. Below this, navigation tabs for 'Code', 'Issues', 'Pull requests', 'Discussions', 'Actions', and 'Security' are visible. The 'Code' tab is active, showing a file tree with folders like '.circleci', '.github', 'apidoc', 'bin', 'src', 'tests', and 'web', and files like '.editorconfig', '.eslintrc.js', '.gitignore', '.nanoignore', '.php\_cs.dist', '.scrutinizer.yml', '.snyk', '.stylelintrc.json', and 'CHANGELOG.md'. Each item has a brief description and a timestamp. On the right side, the 'About' section describes eLabFTW as the most popular open source electronic lab notebook for research labs, with a link to 'www.elabftw.net' and tags for 'mysql', 'docker', 'php', 'laboratory', 'notebook', and 'lims'. Below this, the 'Releases' section shows the latest release 'eLabFTW-3.6.7' from March 3, with 177 releases in total. At the bottom, the 'Sponsor this project' section features a list of sponsors, including 'NicolasCARPi' and 'liberapay.com/NicolasC...', with a link to learn more about GitHub Sponsors.



# eLabFTW: community driven development

<input type="checkbox"/>	71 Open ✓ 214 Closed	Author ▾	Label ▾	Milestones ▾	Assignee ▾	Sort ▾
<input type="checkbox"/>	<b>Allow sysadmin to define default items types for new teams</b> <span>feature request</span> <span>priority:low</span> #2659 opened 11 hours ago by NicolasCARPI					
<input type="checkbox"/>	<b>Table of Contents in Experiments from headings</b> <span>feature request</span> <span>priority:low</span> #2645 opened 4 days ago by mpanighel					1
<input type="checkbox"/>	<b>Accessibility statement</b> <span>feature request</span> <span>priority:low</span> #2643 opened 6 days ago by JariHanninen					1
<input type="checkbox"/>	<b>Add last_used timestamp to api key</b> <span>feature request</span> <span>priority:low</span> #2628 opened 8 days ago by NicolasCARPI					
<input type="checkbox"/>	<b>More granular permissions management</b> <span>feature request</span> #2581 opened on Apr 6 by shabihsherjeel  0 of 1					1
<input type="checkbox"/>	<b>New interface for storage applications: linking large datasets to experiments (database etc.)</b> <span>feature request</span> #2547 opened on Mar 16 by m6121					4
<input type="checkbox"/>	<b>Get User Information via API (add /users endpoint)</b> <span>feature request</span> <span>priority:medium</span> #2522 opened on Mar 2 by m6121					1
<input type="checkbox"/>	<b>Add a button for steps: add in text at cursor position</b> <span>feature request</span> <span>priority:low</span> #2407 opened on Jan 7 by NicolasCARPI					
<input type="checkbox"/>	<b>Allow selecting teams for visibility, not either org or own team, but specific teams</b> <span>feature request</span> #2402 opened on Jan 6 by Aveyron-RetD  1 of 1					3
<input type="checkbox"/>	<b>Bind an event to a database item</b> <span>feature request</span> <span>priority:high</span> #2366 opened on Dec 14, 2020 by JuulGeb					
<input type="checkbox"/>	<b>Display the visibility and editing restriction via symbols</b> <span>feature request</span> #2365 opened on Dec 14, 2020 by JuulGeb					
<input type="checkbox"/>	<b>Idap anonymous binding</b> <span>feature request</span> <span>priority:high</span> #2358 opened on Dec 8, 2020 by mestia					2
<input type="checkbox"/>	<b>Add colors/groups to tags</b> <span>feature request</span> <span>priority:low</span> #2356 opened on Dec 8, 2020 by Paofec					3

# eLabFTW: key features

- Trusted timestamping (RFC 3161)
- Blockchain timestamping
- API access
- SAML/LDAP authentication
- Templates for experiments
- Database for products/protocols
- Export in ZIP, PDF, CSV, JSON
- Molecule editor
- Todolist
- Tex rendering
- Very customizable
- Translated in 17 languages

# eLabFTW: key features

## For research centers/universities

- Host it on your network
- Centralize your results on one server
  - No data gets lost if a laptop of a postdoc is stolen
  - Several teams can be hosted on the same instance
  - You stay in control of your data at all times



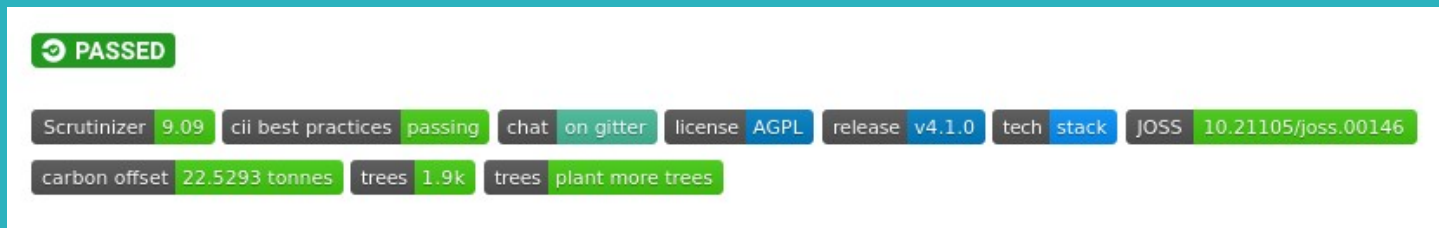
# eLabFTW: key features

## For startups

- Strictly no data leaking to third parties
- Confidentiality is guaranteed
- You stay in control of your data at all times
- Highly customizable

# eLabFTW: quality software

- Test suite (unit, end-to-end, static analysis)
- Respects code standards
- Best practices followed
- Modern tooling used



# eLabFTW: secure software

- Tight and secure configuration at different levels
- Vulnerability scans
- Signed releases
- Perfect score on Mozilla's Observatory

# eLabFTW: secure software

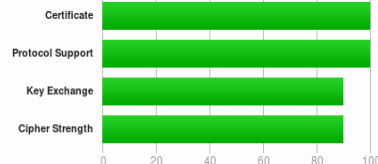
SSL Report: [demo.elabftw.net](https://demo.elabftw.net) (2001:bc8:31d5:100:0:0:0:1)

Assessed on: Tue, 21 May 2019 22:46:39 UTC | **HIDDEN** | [Clear cache](#)

[Scan Another »](#)

## Summary

Overall Rating



Source: [Mozilla's Observatory](#)

## Scan Summary



**Host:** demo.elabftw.net

**Scan ID #:** 19066810 (unlisted)

**Start Time:** May 8, 2021 9:19 PM

**Duration:** 6 seconds

**Score:** 115/100

**Tests Passed:** 11/11

## Security Report Summary



**Site:** <https://demo.elabftw.net/login.php>

**IP Address:** 2001:bc8:31d5:100::1
















**Report Time:** 21 May 2019 22:43:47 UTC

**Headers:**

✓ Strict-Transport-Security ✓ X-Frame-Options ✓ X-XSS-Protection ✓ X-Content-Type-Options  
✓ Content-Security-Policy ✓ Referrer-Policy ✓ Feature-Policy



# eLabFTW: secure software ... not like others...

<b>Scan Summary</b>  Host: ny.labguru.com Scan ID #: 10882470 Start Time: May 22, 2019 12:04 PM Duration: 1 seconds Score: 20/100 Tests Passed: 6/11	<b>Scan Summary</b>  Host: www.docollab.com Scan ID #: 10882496 Start Time: May 22, 2019 12:11 PM Duration: 2 seconds Score: 35/100 Tests Passed: 6/11	<b>Scan Summary</b>  Host: www.eclabnote.com Scan ID #: 10882493 Start Time: May 22, 2019 12:11 PM Duration: 2 seconds Score: 0/100 Tests Passed: 5/11	<b>Scan Summary</b>  Host: ny.scinote.net Scan ID #: 10882483 Start Time: May 22, 2019 12:08 PM Duration: 6 seconds Score: 75/100 Tests Passed: 10/11	<b>Scan Summary</b>  Host: eln.chemotion.net Scan ID #: 10882556 Start Time: May 22, 2019 12:19 PM Duration: 3 seconds Score: 45/100 Tests Passed: 9/11
<b>Scan Summary</b>  Host: exemplarln.com Scan ID #: 10882503 Start Time: May 22, 2019 12:12 PM Duration: 3 seconds Score: 15/100 Tests Passed: 5/11	<b>Scan Summary</b>  Host: labcollector.com Scan ID #: 10882563 Start Time: May 22, 2019 12:21 PM Duration: 19 seconds Score: 0/100 Tests Passed: 3/11	<b>Scan Summary</b>  Host: opennetware.org Scan ID #: 10882490 Start Time: May 22, 2019 12:10 PM Duration: 2 seconds Score: 45/100 Tests Passed: 8/11	<b>Scan Summary</b>  Host: osf.io Scan ID #: 10882485 Start Time: May 22, 2019 12:09 PM Duration: 2 seconds Score: 10/100 Tests Passed: 7/11	<b>Scan Summary</b>  Host: www.labi.app Scan ID #: 10882569 Start Time: May 22, 2019 12:22 PM Duration: 3 seconds Score: 80/100 Tests Passed: 10/11
<b>Scan Summary</b>  Host: www.benchling.com Scan ID #: 10882521 Start Time: May 22, 2019 12:16 PM Duration: 2 seconds Score: 35/100 Tests Passed: 6/11	<b>Scan Summary</b>  Host: app.labstep.com Scan ID #: 10882589 Start Time: May 22, 2019 12:26 PM Duration: 4 seconds Score: 50/100 Tests Passed: 10/11	<b>Scan Summary</b>  Host: www.scilligence.com Scan ID #: 10882597 Start Time: May 22, 2019 12:28 PM Duration: 1 seconds Score: 0/100 Tests Passed: 5/11	<b>Scan Summary</b>  Host: www.labware.com Scan ID #: 10882601 Start Time: May 22, 2019 12:29 PM Duration: 6 seconds Score: 0/100 Tests Passed: 3/11	<b>Scan Summary</b>  Host: pillar.science Scan ID #: 10882612 Start Time: May 22, 2019 12:30 PM Duration: 1 seconds Score: 25/100 Tests Passed: 9/11

# eLabFTW: supported software

Free support on GitHub

PRO support available from Deltablot

Hosting available from Deltablot

<https://www.deltablot.com>

[contact@deltablot.email](mailto:contact@deltablot.email)



# eLabFTW: get hosted!



Hosting a web service can be tricky if you don't have the right knowledge.

HSTS, SSH, TLS, CSP, Docker, Nginx, etc...

Don't worry about all of that, and use Deltablot's hosting!

[See Deltablot hosting solution](#)

Get in touch:  
[contact@deltablot.email](mailto:contact@deltablot.email)

# eLabFTW: links

Main website: <https://www.elabftw.net>

Documentation: <https://doc.elabftw.net>

Live demo: <https://demo.elabftw.net>

Source code: <https://github.com/elabftw/elabftw>

Commercial website: <https://www.deltablot.com/elabftw>