

# LICENSING RESEARCH SOFTWARE UNDER AN OPEN LICENCE

## WHAT IS A LICENCE?

A licence is a legal statement that explains how others can use (e.g. modify, share or distribute) software and under what conditions. It ensures that software is used legally and protects both developers and users. Choosing a licence early, ideally at the beginning of the software development project, helps prevent legal and compatibility issues.

This guide for open science trainers is designed to help them provide practical guidance on licensing research software. It covers common license types, how to select a license, and practical steps to apply it.

## COMMON LICENCE TYPES

- A variety of standardized software licenses are available, and they can be applied to research software as well. Based on the level and type of restrictions a license imposes, software licences can be grouped into the following types:
- Permissive licences allow anyone to reuse, modify, and redistribute software with few requirements ([MIT](#), [BSD](#), [Apache](#))
- Copyleft licences require that any modified or derivative versions of software must also be shared under the same open licence ([General Public License](#) - GPL, [GNU Affero General Public License](#) - GNU AGPL). This ensures that improvements remain open and prevents proprietary lock-in.
- Public-domain-style licences let anyone use, modify, and share software with almost no restrictions ([Unlicense](#)).
- Ethical or source-available licences let others see and use code but place restrictions on certain uses, e.g. for military or surveillance purposes ([Hippocratic License](#), [Anti-996](#), [Responsible AI Licenses - RAIL](#)).
- Explore permissions, conditions and restrictions defined by various software licences: [Choose a License](#)

## FACTORS TO CONSIDER WHEN CHOOSING A LICENCE

- The goal of the software development project – e.g. a permissive licence if the main goal is to ensure wide adoption, a copyleft licence if it is important to ensure that all improvements remain open.
- License compatibility: When software depends on other software libraries, its license must be compatible with theirs to prevent legal or technical issues during integration or redistribution.
- Patents: If software uses components protected by patents owned by third parties, the developer may not be able to apply some open-source licenses (e.g. GPL or Apache) without permission.

## CHOOSING AND IMPLEMENTING A LICENCE

01

Use tools that explain licenses in plain language like [choosealicense.com](#) to find the appropriate licence.

02

Verify that the chosen licence is compatible with the licenses of any libraries or components the software relies on. If not, select a different licence.

For machine learning projects, code, data and models should be licensed separately using appropriate licences – e.g. software licenses for code, [Creative Commons](#) or [Open Data Commons](#) for data and software or model-specific ([OPT-175B license](#), [BigScience RAIL License](#)) for models.



[Compatibility Checker | Interoperable Europe Portal](#)  
[License Compatibility - The Turing Way](#)  
[Licensing Machine Learning models - The Turing Way](#)

03

Create a new file in the project's root folder (top-level directory) and name it License.txt or License.md. Copy the text of the chosen licence in the file. The licence texts can be found at:

- [choosealicense.com](#)
- [SPDX License List](#)

04

Include the licence information at the top of each code file in the project that falls under that licence.



[Tutorial: How to become REUSE-compliant](#)

05

Include the licence information in the README file. List all also third-party components the software relies on and clearly state their licenses. Include this information in the README or in a separate file.

## TAKE ACTION!

- Educate researchers about software licensing and its importance.
- Help them select and implement licenses
- Promote good licensing practices
- Raise awareness of open, ethical and responsible licensing



## SELECTED RESOURCES

- [What is 'Free/Libre' or 'Open Source' software? The Turing Way](#)
- [Licenses – Open Source Initiative](#)
- [Open source licenses: What, which, and why - Ars Technica](#)
- [Find and compare software licenses | Interoperable Europe Portal](#)