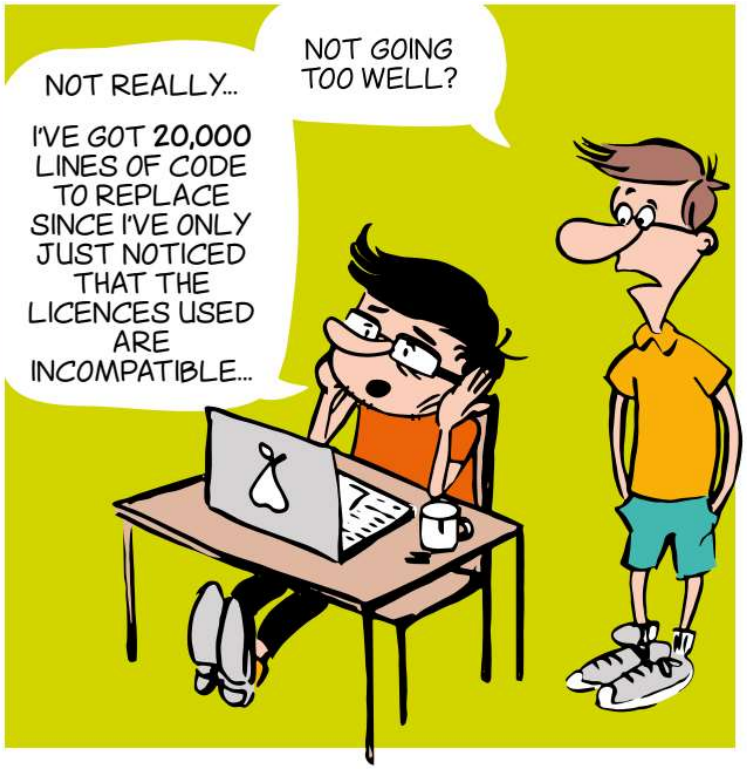
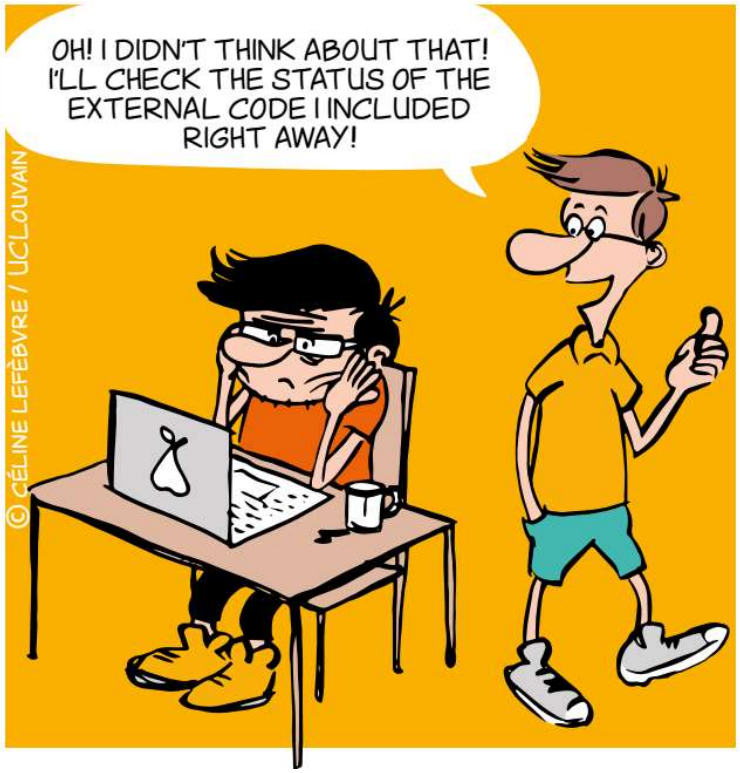
EXTENSION INT {
VAR M: INT { RETURN SELF }
VAR MM: INT { RETURN SELF * 1000 }
VAR CM: INT { RETURN SELF * 100 }
VAR DM: INT { RETURN SELF * 10 }


NOT GOING TOO WELL?
NOT REALLY...
I'VE GOT 20,000 LINES OF CODE TO REPLACE SINCE I'VE ONLY JUST NOTICED THAT THE LICENCES USED ARE INCOMPATIBLE...


OH! I DIDN'T THINK ABOUT THAT! I'LL CHECK THE STATUS OF THE EXTERNAL CODE I INCLUDED RIGHT AWAY!
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Journée des chercheurs
CyberExcellence
06/04/2023

Wallonie

LiEU
LIAISON ENTREPRISES-UNIVERSITÉS

« Renforcer l'impact de la recherche universitaire dans la société »

Managing open-source licensing

Sébastien ADAM
Knowledge Transfer Advisor @UCLouvain

CRef

WE Wallonie Entreprendre

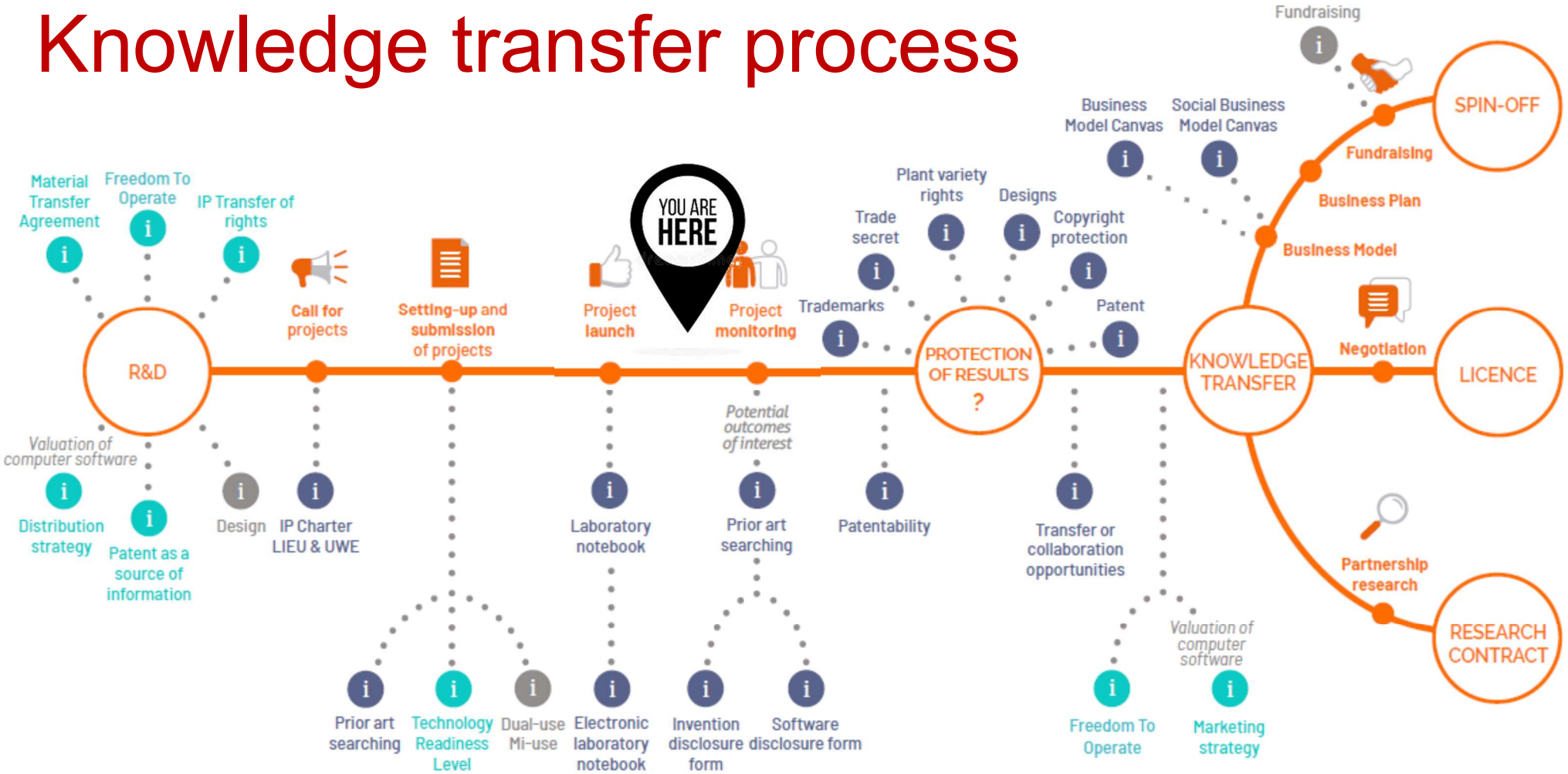
LiEU, the KTOs' Network

The LIEU network brings together the Knowledge Transfer Offices (KTOs) of **Belgian French-speaking Universities**

Clear policies in institutions to **contribute to innovation and regional development**

- Ensure socio-economic impact of Research Results
- Make easier the cooperation b/w companies & academic researchers
- Manage Intellectual Property (Rights)

Knowledge transfer process



https://reseaulieu.be/memo-services-chercheurs/

Motivation

- **Reuse of existing code :** As part of your research, you create software based on existing code/libraries
- **Distribution of your code :** Your code will be distributed and used by companies through the Cyber Factory
- Attention must be paid to the choice of licenses

Choice of a distribution method

Proprietary License

Pros:

- Economic return (or assessment of the potential economic return)
- Competitive advantage (secret)
- Reassures companies (for collaborations)
- Reassures investors, simple business model (for spin-offs)

Cons:

- Not compatible with Open Science
- Fewer possibilities of dissemination

Open Source Licence

Pros:

- Compatible with Open Science
- Possibility to get help from other contributors
- Facilitates the mobility of researchers between universities
- Possibility of testing for users
- Contribution to the common good

Cons:

- No financial return on license
- Risk that the lead on the project escapes the main author
- For large projects, need to manage the user/developer community

In the framework of…

CyberExcellence

By CyberWal

…distribution under an open source license is encouraged

The 2 types of Open Source

Permissive OS License (MIT, BSD, Apache…)

Pros:
- Greater freedom of dissemination and reuse
- Larger community of contributors, more potential users

Cons:
- Code can be commercialized without permission or acknowledgement to the author

Recommended permissive license: Apache 2

This permissive license contains a patent protection clause.

Copyleft OS Licence (AGPL, GPL…)

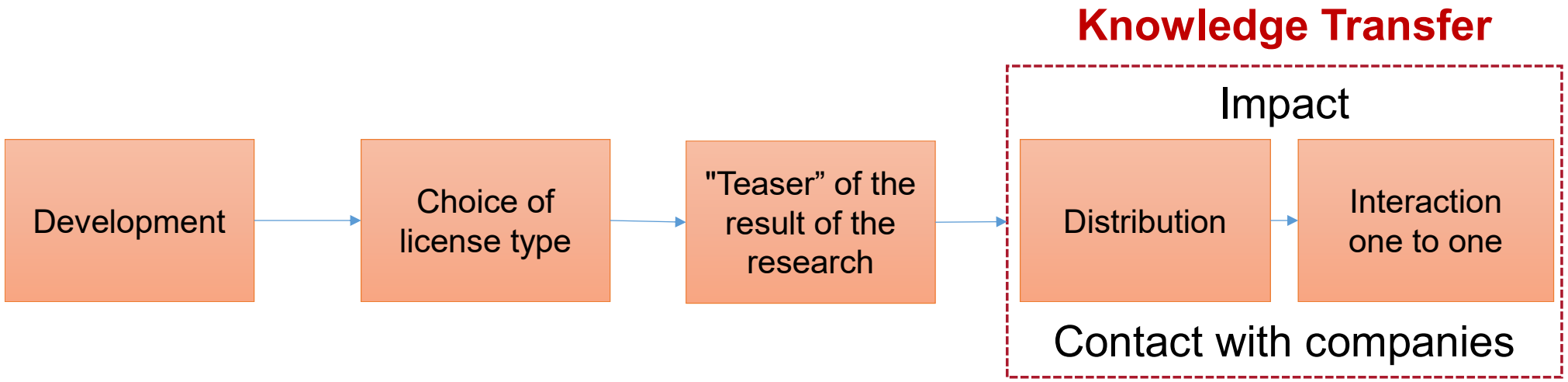
Pros:
- Allows to monitor the evolutions and fork of the code
- Prevents code reuse in commercial software

Cons:
- There are many incompatibilities with other open source licenses

Recommended copyleft license: AGPL v3

The strictest copyleft license: obliges to make the code available when distributing the software, but also when making it accessible via a cloud service, which is very relevant in the context of AI/cyber.

Call on your KTO scientific advisor



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Thank you

Sébastien ADAM
Knowledge Transfer Advisor @UCLouvain

CRef

WE Wallonie Entreprendre

Quick guide to most common OS licenses

MIT license

- Permissive license
- Source code distribution : keep/adapt the copyright notice, keep the license
- Binary form distribution : mention ‘somewhere’ the copyright notice and license conditions

- Trigger : distributing the software

BSD-3 license

- Permissive license
- Source code distribution : keep/adapt the copyright notice, keep the license
- Binary form distribution : mention the copyright notice and license conditions in the software documentation
- Do not use the names of copyright holders (or authors) to promote your software

- Trigger : distributing the software

Apache v2 : copyright & license

Permissive license

Notify any modified files

Source code distribution : keep/adapt the copyright notice (NOTICE file), keep the LICENSE file

Binary form distribution :

- provide a copy of the license
- provide) the NOTICE (copyrights information in NOTICE file, or inside documentation, or via the software user interface

Do not use project trademarks

Warning : Anti-patent treachery clause !

- If you have a patent on a feature you contribute to the software, you cannot then use this patent to prevent anybody from using the software freely

Trigger : distributing the software

GPL v3 license

Copyleft license

Distribution :

- Publish a copyright notice, and a notice that the software is licensed under GPL
- Give access to the source code of the whole software

Warning : Anti-patent treachery clause !

- If you have a patent on a feature you contribute to the software, you cannot then use this patent to prevent anybody from using the software freely

Trigger : distributing the software

GPL v2 license

Copyleft license

Quite similar to the GPL v3 license, but incompatible with *a lot* of other open source licenses (including the very common Apache, and GPL v3 licenses !)

➔ We strongly encourage you to take contact with your KTO if you have to use a library under GPL v2

Trigger : distributing the software

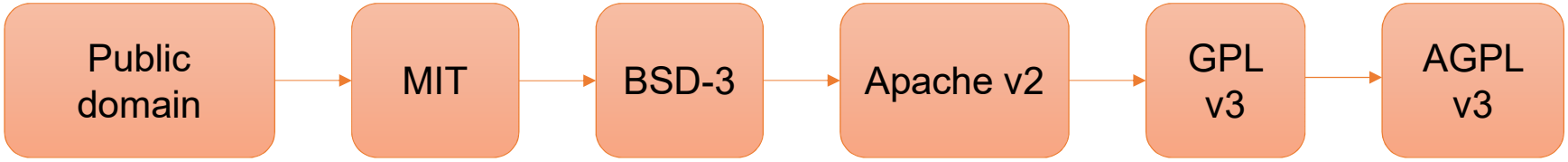
AGPL v3 license

Copyleft license

Same as GPL v3, except the trigger

Trigger : distributing the software, **and making it available as a web service ('cloud')**

OS licenses compatibility



General rule : you can only use libraries distributed under a license that is more permissive than your distribution license

Example : If you distribute your software under the Apache license, you can use libraries under :

- Apache
- BSD
- MIT
- Public domain