Erasmus Plus Programme – KA2 Strategic Partnerships for higher education

Project № 2018-1-ES01-KA203-050493

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein

Document description

Document Name	Practical Cybersecurity Guide
Revision	V4
Revision Date	23/01/2020
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1. Overview

InCYS 4.0 project intends to develop a training course in cyber security awareness and responsiveness for current and future technicians/ engineers (EQF level 5+) who will work with/alongside Industrial 4.0 Control Systems. The flexible didactic modules created for InCyS 4.0 consisting of a total of 30-50 hours of training will:

- Provide an overview of the most important concepts associated with the area of Industrial security.
- Understand the main differences between security policies that are carried out in IT environments and OT environments.
- Analyze the main vulnerabilities and threats that can be suffered in industrial environments.
- Know the different types of attacks that can be made to an OT network or a critical infrastructure.
- Introduce the most important aspects associated with the protection of critical infrastructures and current regulations.
- Describe the main countermeasures that can be included to strengthen industrial networks and protocols.

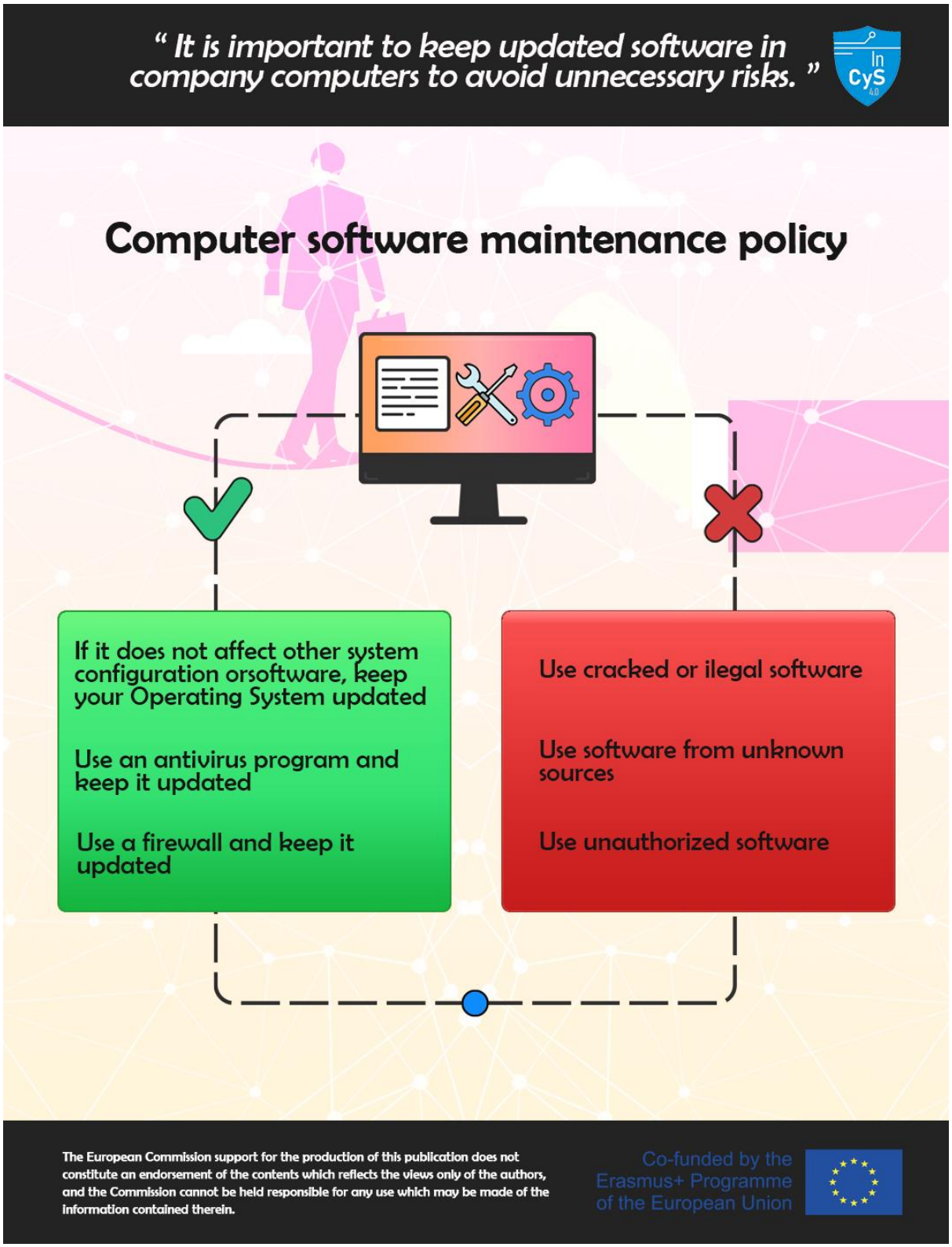
Additionally to the online training course the project developed a Practical Cyber Security Guide for technicians covering the fundamentals threats of cyber security for Industrial Systems.

This practical guide is developed in the form of posters that can be placed in the industrial environment and give directly to technicians the DOs and DON'Ts, in other words the correct practices in relation to keeping industrial systems safe from all forms of attacks.

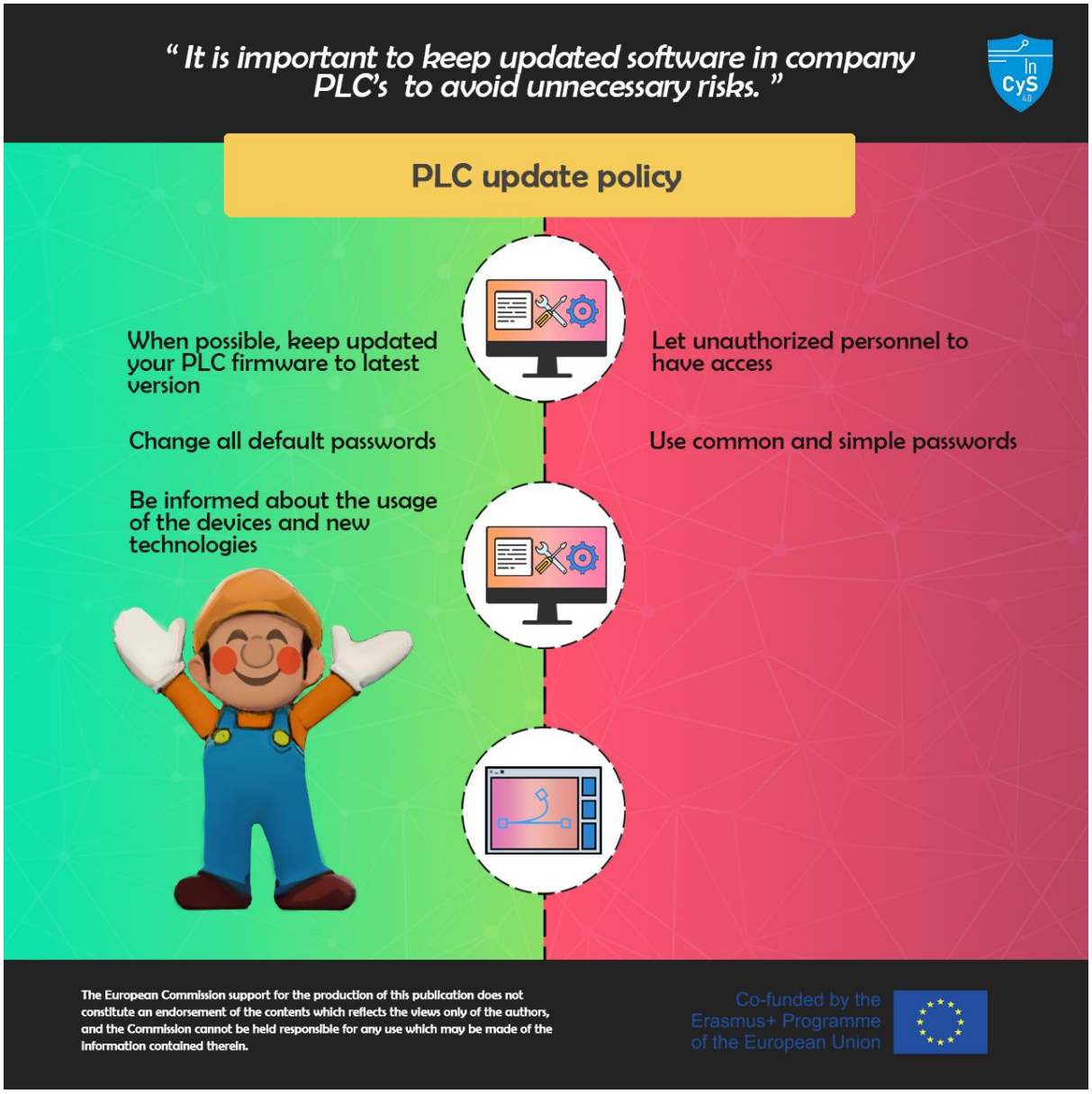
This Quick Guide, summarising the main risks and steps to follow for technicians working around digital control systems in Industry 4.0, can be distributed as a stand-alone fast handbook on the most basic issues or/and as a complement to the training course.

2. Practical Cybersecurity Guide

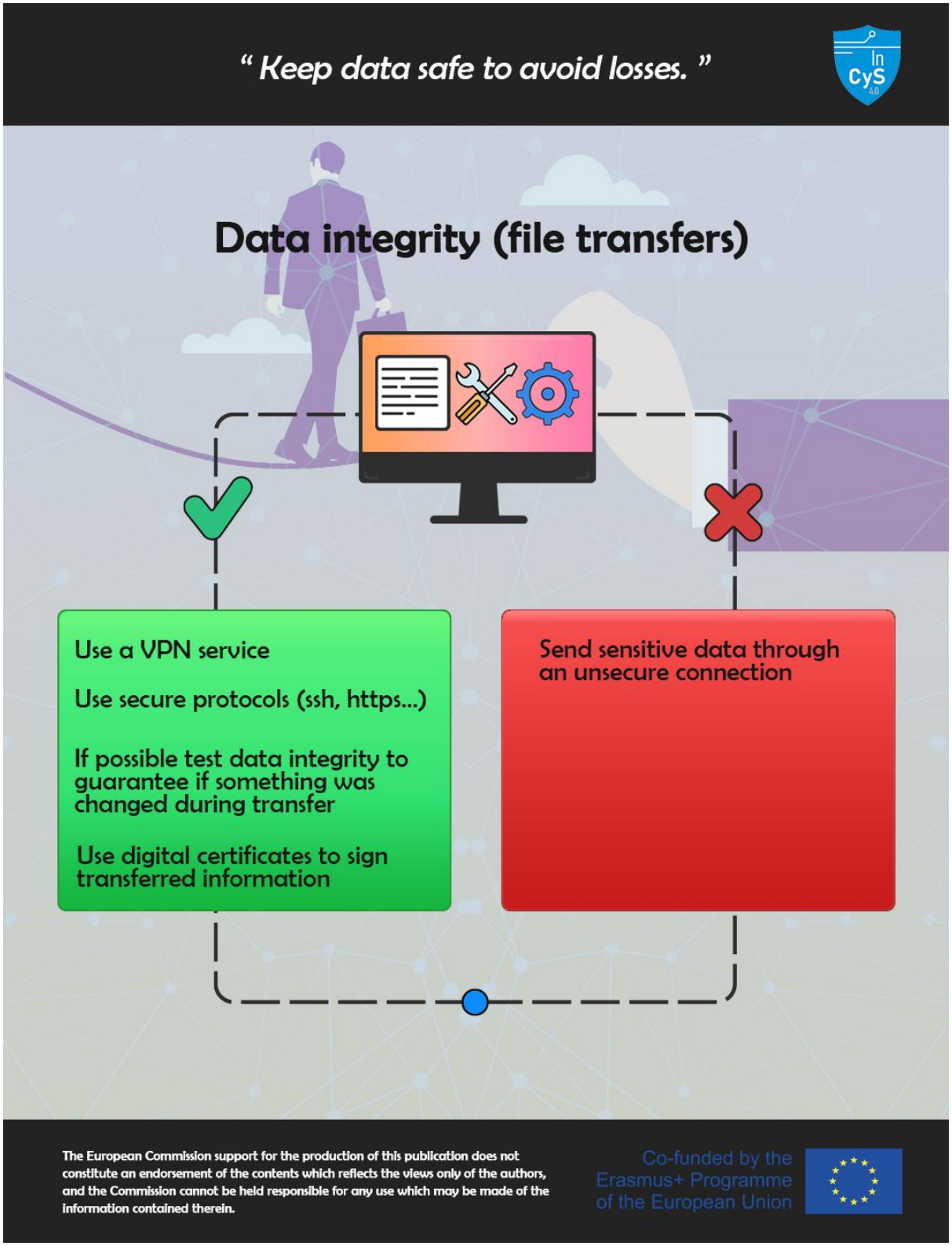
2.1 Computer software maintenance policy



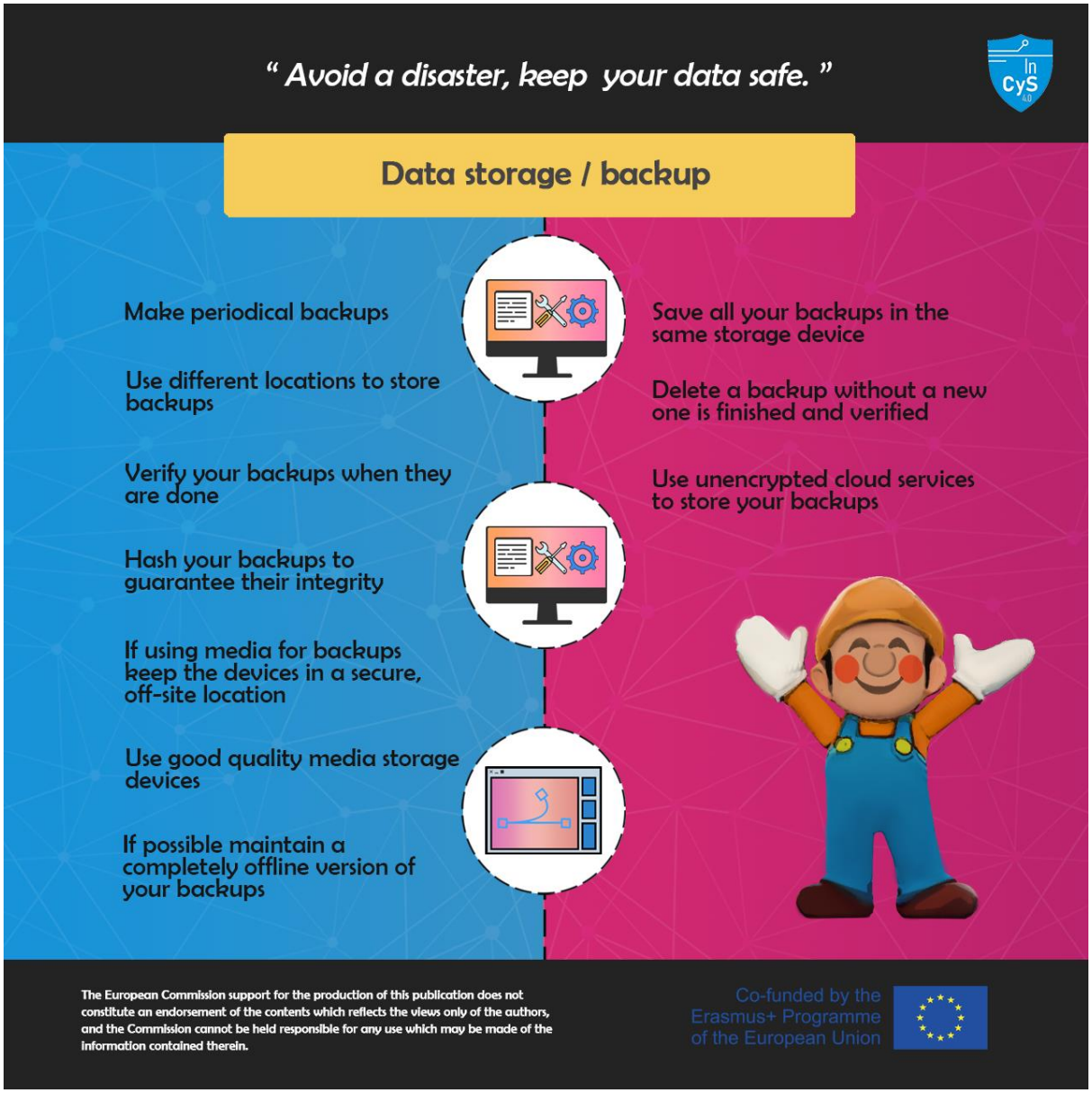
2.2 PLC update policy



2.3 Data integrity (file transfers)



2.4 Data storage - Backup



2.5 Passwords

" A poorly chosen password may result in serious security problems. "

Passwords

Change your password frequently

Use combination of Caps, numbers and characters

Use long passwords, more than 8 characters

Use an open source password manager to store all your passwords

Share your passwords with other people

Write passwords down and store them in your office

Use short passwords

Use common passwords like your birthday etc.

Use the same password twice

Use an older password when you change one

Be attended when you change your passwords

Use the "Remember Password" feature of applications

Store passwords in your computer unencrypted

Tell your passwords to anyone even if you are asked to do so

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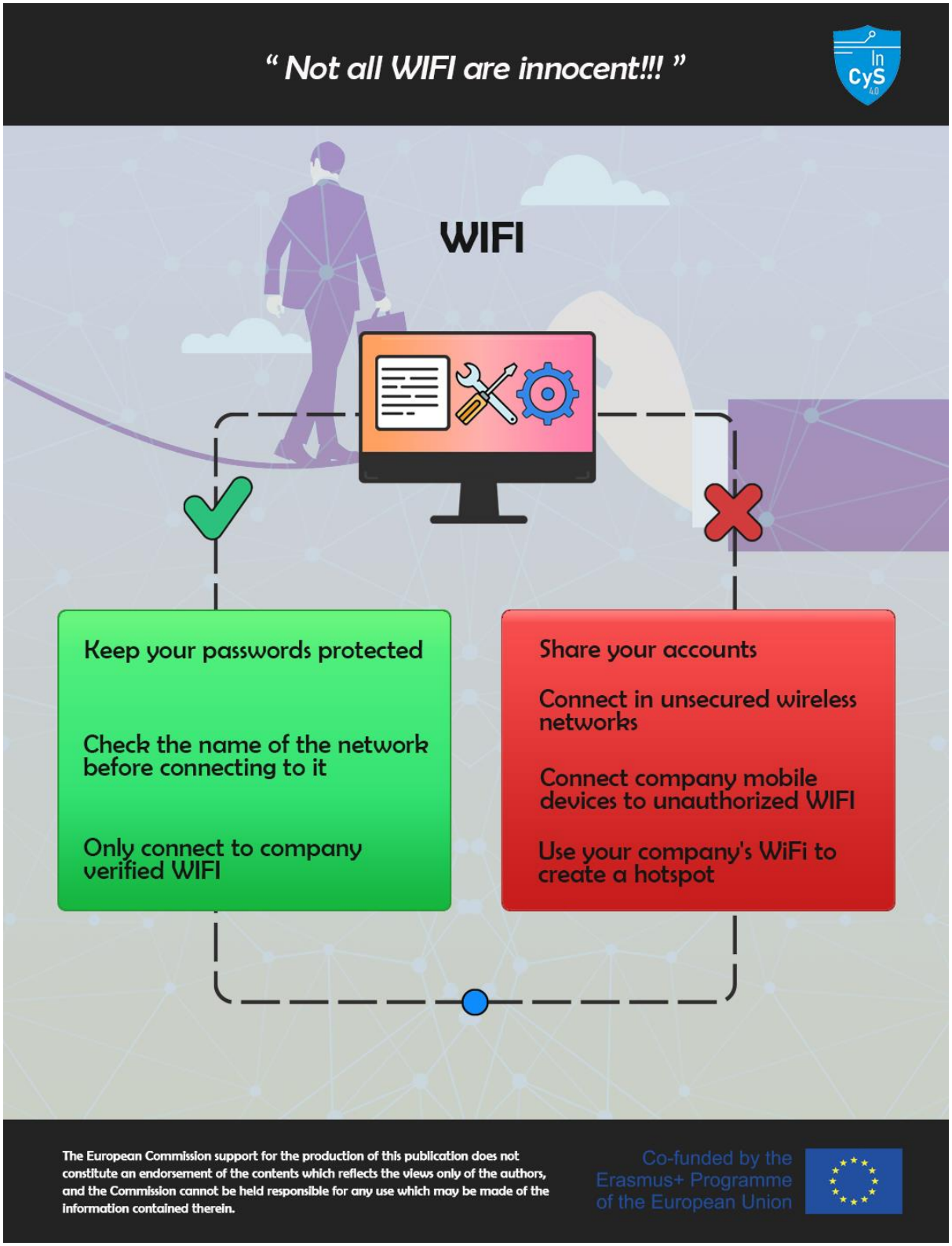
2.6 Wifi


" Not all WIFI are innocent!!! "
WIFI
Keep your passwords protected
Check the name of the network before connecting to it
Only connect to company verified WIFI
Share your accounts
Connect in unsecured wireless networks
Connect company mobile devices to unauthorized WIFI
Use your company's WiFi to create a hotspot
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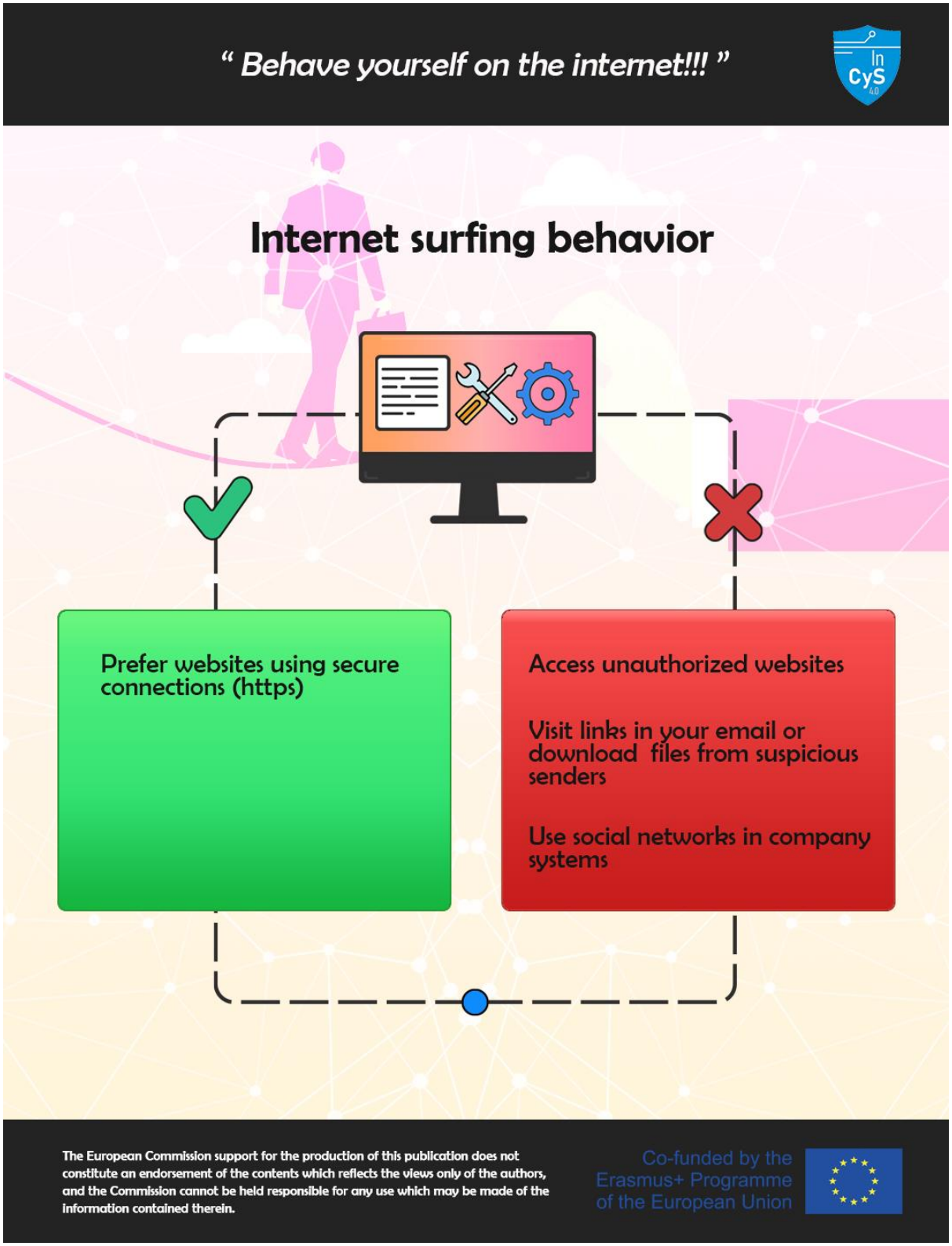
of the European Union

2.7 Internet surfing behavior



2.8 General rules