



Deliverable D.3.2

CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Deliverable Control Page	
Deliverable Title	CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters
Deliverable Number	D3.2
WP number	WP3
Author(s)	Alan Martin Redmond, Guillaume Roux (Pole SCS), Marta Krakowiak (ELCA)
Short Description	The novel customised cluster business support services will include: a) creation of technology transfer team in each cluster to facilitate dialogs among its SMEs and R&D members, and external technology providers (mapped within the project action); b) support to identify relevant tailored financing schemes and/or funding sources and access to finance - A guide with overview of financing actors & instruments, along with an outline of available innovative investments readiness assessment tools c) support to define and clarify background and foreground issues incl. IPR rights in the NDAs (non-disclosure agreements) and pre-commercial agreements
Version	31/05/2020

The content of this deliverable represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Executive Agency for Small and Medium-sized Enterprises (EASME) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

INDEX

1	BACKGROUND AND GENERAL OBJECTIVES	3
1.1	REMINDER OF CYBER SECURE LIGHT PROJECT OBJECTIVES	3
1.2	SCOPE OF THIS DELIVERABLE	3
2	RESULTS OF THE SURVEY CARRIED OUT AMONGST THE CLUSTERS OF THE CSL CONSORTIUM	4
2.1	TECHNOLOGY TRANSFER	4
2.2	ACCESS TO FUNDING SOURCES	8
2.3	IPR	12
2.4	CYBER SECURITY	13
2.5	SUMMARY	17
3	REVIEW OF EXISTING FINANCING SCHEMES AVAILABLE AT REGIONAL, NATIONAL AND EUROPEAN LEVEL	18
3.1	REGIONAL AND NATIONAL FUNDING OPPORTUNITIES	18
3.1.1	<i>In France</i>	18
3.1.2	<i>In Italy</i>	19
3.1.3	<i>In Poland</i>	20
3.1.4	<i>In Hungary</i>	21
3.1.5	<i>In Slovenia</i>	22
3.1.6	<i>In Spain</i>	24
3.2	EUROPEAN OPPORTUNITIES FOR SMES	26
3.2.1	<i>EIC Accelerator</i>	26
3.2.2	<i>Fast Track to Innovation</i>	27
3.2.3	<i>Eurostars</i>	28
3.3	EUROPEAN OPPORTUNITIES FOR CLUSTERS	28
3.3.1	<i>Cluster support schemes</i>	29
3.3.2	<i>Cascade funding</i>	29
3.3.3	<i>Digital Innovation Hubs</i>	30
3.3.4	<i>Horizon Europe</i>	31
3.4	ACCESS TO PRIVATE FINANCE: ASSESSMENT OF THE INVESTMENT POTENTIAL OF SMES	32
4	REVIEW OF GOOD PRACTICES REGARDING INTELLECTUAL PROPERTY RIGHTS	33
4.1	WHY IS IP IMPORTANT	35
4.2	IP BASICS	37
4.3	IP AS A BUSINESS ASSET	41
4.4	SUPPORT SERVICES & USEFUL TOOLS	42
4.5	QUESTIONS SESSION	42



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

1 Background and general objectives

1.1 Reminder of Cyber Secure Light project objectives

Lighting positions itself at the heart of Smart Buildings and at the forefront of the Internet of Things revolution. LED systems serve as a connectivity link between sensors, smart applications, artificial intelligence programming. As one of the most densely distributed elements within the built environment, lighting fixtures provide the ideal platform for gathering essential data about what is happening in the workplace or at home. Unfortunately, this evolution has also its downside linked to the digital security aspects of IoT-enabled systems. Incorporating cybersecurity into smart buildings is now a necessity. This requires a new approach that must take into account the cross-industry collaboration. CYBER SECURE LIGHT (CSL) aims to develop a Joint Cluster Partnership Strategy to pursue proactive and business-oriented cross-sector cooperation of SMEs and clusters of the IoT smart building value chain, focused on smart lighting security aspects. Consortium will adopt the interclustering approach to exploit synergies, common assets, innovation sources and financing opportunities to bring the interregional B2B and C2C cooperation to the next level and mobilise joint smart investment.

1.2 Scope of this deliverable

The general objective of this deliverable is to develop, in the framework of *Task 3.3 Novel business access to finance and technology transfer support services*, a joint coaching methodology to strengthen business support services of clusters for the benefit of their members, and in particular SMEs. This methodology will be further tailored and adopted by each partner cluster, in order to strengthen their existing service portfolio and provide better support to access to finance and technology transfer to all their member companies.

This deliverable articulates around 3 main sections:

- i) The results of the survey carried out amongst the clusters of the Cyber Secure Light consortium;
- ii) The review of existing financing schemes available at regional, national and European level;
- iii) The review of good practices regarding Intellectual Property Rights (IPR).

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

2 RESULTS OF THE SURVEY CARRIED OUT AMONGST THE CLUSTERS OF THE CSL CONSORTIUM

A survey has been conducted within CSL cluster partners in order to assess the current status of their service portfolios around the following topics:

- i) technology transfer;
- ii) access to funding sources;
- iii) IPR;
- iv) cyber security.

2.1 Technology transfer

Task 3.3 a) creation of technology transfer team in each cluster to facilitate dialogs among its SMEs and R&D members, and external technology providers is the main focus of this section. This survey was non-random as it was necessary to contact the clusters for any follow-up support.

After having been asked to identify themselves, the second question evaluated the level of maturity within the clusters in relation to technology transfer process.

Can you please rank between 1 to 5 (5 being the highest) how the technology transfer process is currently managed within your cluster?

7 responses

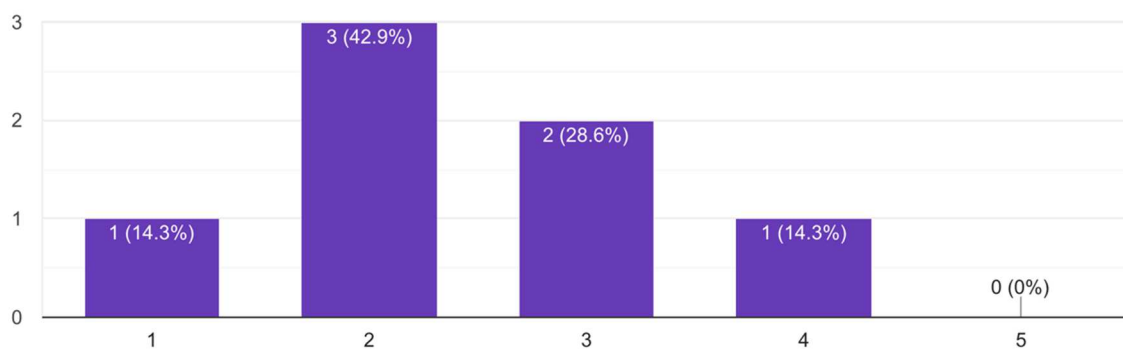


Figure 2 – maturity level of technology transfer process managed within clusters

As the respondents indicated in Figure 2 the majority of the respondents indicated a level 2 acknowledgement of how the technology transfer is currently managed within their cluster. Two respondents suggested their management level is level 3 while a low level 1 was indicated once as too was a high level 4. However, level 5 was not never marked. In summary this would suggest that the maturity level is not very high and should be a main driven factor for the type of training.

As part of analysing if the clusters had national or international agreements with academia or technology providers to assist in such transfer processes the third question focused on this medium.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Do you have any agreements / MoU with academia/technology providers (internal and/or external to the cluster)?

7 responses

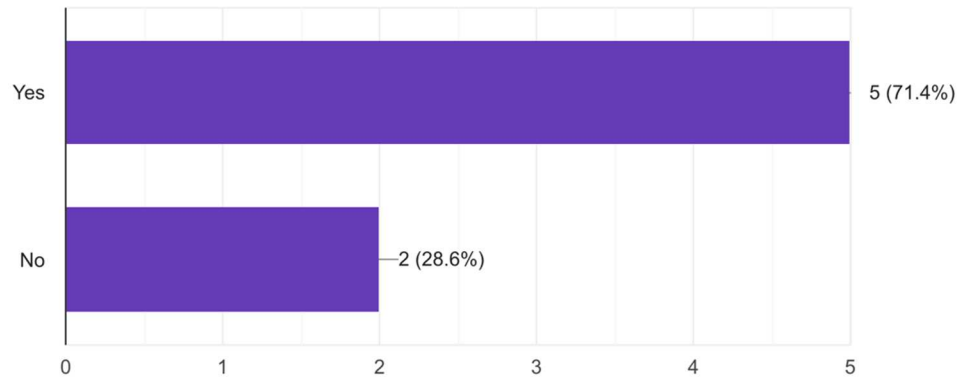


Figure 3 – Agreements/MoU with academia/technology providers

Figure 3 shows that five of the clusters do have agreements with academia/technology providers which suggests that most of them are in the position of connecting SMEs and such technology providers for technology transfer purpose.

In a direct follow-up to this question the respondents were asked what kind of activities for SMEs are, they related to.

If yes, what kind of activities for SMEs are they related to?

6 responses

N/A
Dissemination of information and experience exchange
R&D,
Training, technological development, assesment and consulting
R&D projects involving industry players, including 90% of the time SMEs
Connection to EU projects, including ERASMUS+

As the responses indicated there is clusters focused on the direction of enabling their SMEs to gain support for technological transfer process such as; “training, technological development, assessment and consulting”.

For those clusters that stated no, one of them did have agreements but not necessarily MoUs, while the other does use MoUs but just not their own due to being a young association.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

If no, why not?

2 responses

ELCA currently uses MoUs / agreements of its members (regional/national lighting clusters) and doesn't have its own agreements. ELCA is a young association and only recently has started to increase its international position. The multi-bilateral agreements/MoUs with the technology providers and / or research networks are one of the ELCA's priorities for the next 2 years

We have not any special permanent agreement. We collaborate with academia on specific Regional or European Research project

Within your cluster is there is any internal technology transfer team/groups who facilitate the relations between companies and R&D providers?

7 responses

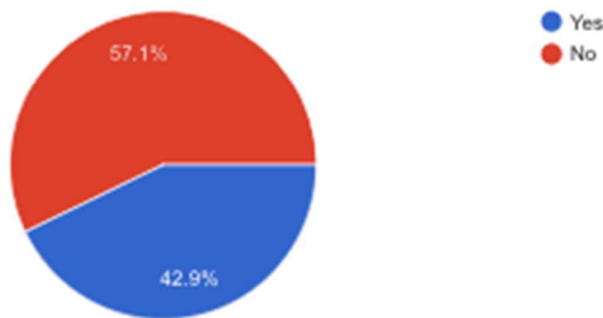


Figure 4 – Internal technology transfer team/groups

The final question in section 1 focused on the need of setting up/training respondents to engage in technology transfer team/group that facilitate relations between companies and R&D providers. As figure 4 shows this response is nearly even suggesting that there may be a lack of knowledge on the process or/and the benefits.

The next question asked the respondents for further information on their best practices for creating such a team.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

If yes how it is structured and how does it works, what can be improved?

4 responses

-
- There is no a specific team but the work is managed by the President that mantain relationship with the company to facilitate technology transfer
- Work Groups that represent different subsectors such as Industry 4.0, Blockchain, Smart Cities, etc. The leader of every Work Group is a SME related to that subsector.
- Within Pôle SCS activities are included the organisation of technology working groups focused on IoT & microelectronics, AI & Big Data and Cybersecurity. These working groups involve technology actors from both academia and industry. They are an excellent playground for technology transfer between these actors as they all get the possibility to pitch in front of each of them. This enables collaboration and technology transfer.

In total three clusters replied with two clusters showing similar structures such as working groups focusing on different sectors with one cluster stating: **“They are an excellent playground for technology transfer between these actors as they all get the possibility to pitch in front of each of them. This enables collaboration and technology transfer.”** Another cluster identified that there was no specific team but that the work is managed by the President that maintains relationship with company to facilitate technology transfer.

The second follow-up question asked the respondent for their requirements to structure such technology transfer.

If no, do you see the need to structure such technology transfer? with what activities and/or related to any specific technology or covering all requests?

3 responses

- Yes we would like to enhance our internal capacity also in the technology transfer field in order to provide specific support and service to our members - clusters. We aim at activating consulting services focusing on technology transfer tailored to clusters' needs (and not needs of companies, as the technology transfer for SMEs is managed directly by each cluster member): mainly knowledge transfer and capacity building services (workshops, trainings, webinars with experts, technology providers etc.) on the new / disruptive technologies relevant for the lighting sector; knowledge sharing on the EU technology priorities and legislation, funding opportunities for clusters and companies; IPR issues.
- Cluster schould facilitate contacts between SMEs and technology providers
- SGG is too small to have specific services/department for this topic.

In particular, one cluster presented a detailed synopsis of their needs; “Yes we would like to enhance our internal capacity also in the technology transfer field in order to provide specific support and service to our members – cluster. We aim at activating consulting services focusing on technology



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

transfer **tailored to clusters' needs** (and not needs of companies, as the technology transfer for SMEs is managed directly by each cluster member): mainly knowledge transfer and capacity building services (**workshops, trainings, webinars with experts, technology providers etc.**) on new/**disruptive technologies** relevant for the **lighting sector**; knowledge sharing on the EU technology priorities and legislation, funding opportunities for clusters and companies; IPR issues.”

2.2 Access to funding sources

Task 3.3 b) support to identify relevant tailored financing schemes and/or funding sources and access to finance - A guide with overview of financing actors & instruments, along with an outline of available innovative investments readiness assessment tools), has been reviewed in this section. The opening question in this section requested feedback on the current services situation within the consortium - What are the current services provided at clusters' level?

Seven clusters respondent with detail of their current situation:

Respondent 1:	<ol style="list-style-type: none"> 1. Knowledge sharing about Funding opportunities at European level - call for proposals from the EU programmes, cascade funding, international initiatives, private investors access to finance (i.e. investors days, pitching opportunities for companies and start-ups, etc.) 2. Support to project development, submission and management 3. Search for partners 4. Search specific funding for members' requests
Respondent 2:	Dissemination of information concerning technology transfer, sources of financing, trainings
Respondent 3:	Information on EU financing sources (H2020, COSME...), inviting SMEs to become partners, third party partners in EU project, consultancy in budget planning and financial reporting
Respondent 4:	<p>Pôle SCS provides two different type of services regarding financing:</p> <ol style="list-style-type: none"> 1) Access to public funding. Pôle SCS organises 4 times per year information days on ongoing regional, national and European R&D projects funding opportunities. Behind information and awareness raising, we support our members all along the process of project building and submission (consortium building, project positioning, budget, administrative process for submission, etc.). 2) Access to private finance. A dedicated programme on access to private finance is managed by Pôle SCS with the help of external consultants. This programme is targeting startups or SMEs that are planning the industrialisation



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

	of an existing product or the launch of a new product. It is focused on defining a sound business plan for such activities, in view of preparing a presentation towards private investors. The programme also include the introduction to investors.
Respondent 5:	Assessment on different public funding sources that are available for SMEs on local, regional and national level.
Respondent 6:	Green funding, international and EU funding
Respondent 7:	Luce in Veneto facilitate the access to Regional and European fundings for R&D and Internazionalisation projects.

The main dominator between the majority of the clusters for providing finance services was EU funding or Public Funding. Private finance was also deemed necessary for startups and SMEs such as “having a dedicated programme on access to private finance is managed by Pôle SCS with the help of external consultants. This programme is targeting startups or SMEs that are planning the industrialisation of an existing product or the launch of a new product. It is focused on defining a sound business plan for such activities, in view of preparing a presentation towards private investors. The programme also include the introduction to investors”.

The second question in this section requested the respondents to identify how their financial funding service is structured in order to evaluate synergies and best practices.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Can you state how the service is structured?

7 responses

Periodical newsletters, constant email communication, bilateral meetings (phone and video conferences) and plenary sessions / workshops for members
Facilitated access to information, relevant platforms and portals
Consultation service on project ideas and their feasibility

Mainly activity is conducted in the web-site and social media. Occasionally in personal contacts of engaged parties.

No specific structure, case by case implementation, depending on the nature of call/project.

1) Access to public funding: a) information days, b) individual project support
2) Access to private finance: a) selling the service to SMEs b) help of external consultants

We inform the SMEs about the public funding opportunities. Furthermore, we explain how every different funding opportunity works and give them the option for the Cluster to process their application.

It is a joint service provided by a partnership of clusters

Luce in Veneto advises companies about new opportunities of fundings related to specific lighting sector.

Implementing dissemination via social media was recognized by many clusters. One particular cluster highlighted a series of mediums:

- Periodical newsletter, constant email communication, bilateral meetings (phone and video conference) and plenary sessions/workshops for members;
- Facilitate access to information, relevant platforms and portals;
- Consultation service on project ideas and feasibility.

In order, to further investigate this subject the following question specifically asked the respondents directly how they would like to improve their practice.

- Increase the number of knowledge building meetings (online trainings, webinars) with experts;
- Activity should be based on formal team of skilled working on regular basis;
- Assure financing (public) of these services. Currently there are none;
- a) the number of SMEs interested in collaborative European projects, and b) the number of SMEs and Startups participating in the programme;
- Luce in Veneto would like to obtain knowledge on how to direct companies with contacts for Private Funding's (e.g. venture capital).

As presented; obtaining more knowledge on topics such as online training, webinars by experts would be considered as an improvement as too is finding sources of contact for financing both public



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

and private funding to be matched with SMEs. Also, the need to identify the correct SMEs to approach for European projects and number of SMEs and Startups participating in the programme. **Subjectively in this reviewer’s opinion the use of creating a consortium wide platform for digital market awareness i.e. Innovative Radar (The Innovation Radar is a European Commission initiative to identify high potential innovations and innovators in EU-funded research and innovation projects)¹ maybe a key instigator.**

The next questions requested the respondents to identify at what level they are currently at with regards to investment readiness.

Does your cluster offer any investment readiness assessment for companies new projects/products?
7 responses

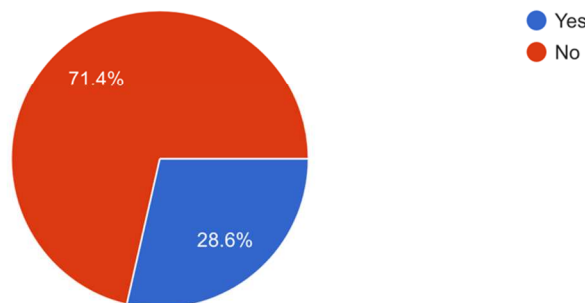


Figure 5 – Investment readiness assessment for companies’ new projects/products

Figure 5 shows that the majority of the companies are providing services towards Investment readiness assessment for companies’ new projects/products.

Does your cluster cooperate with public authorities granting funds to SMEs, and/or with private investors?
7 responses

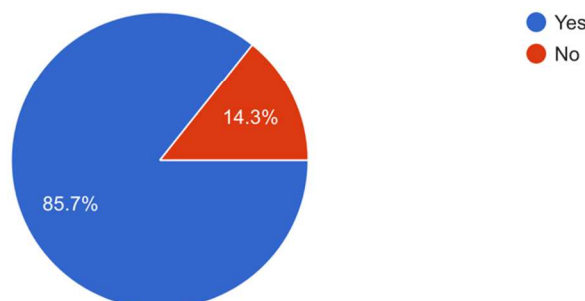


Figure 6 – Clusters cooperating with with public authorities granting funds to SMEs, and/or with provate investors.

¹ <https://ec.europa.eu/digital-single-market/en/innovation-radar>



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

There was a significant high level of clusters cooperating with public authorities granting funds to SMEs, and/or with private investors.

2.3 IPR

Task 3.3 b) Support to define and clarify background and foreground issues incl. IPR rights in the NDAs (non-disclosure agreements) and pre-commercial agreements is the focus of this section. The questions were designed in a closed format to justify what steps should be taken based on their response.

Does your cluster provide support on IPR?

7 responses

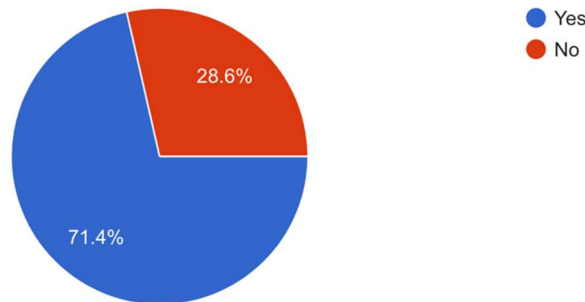


Figure 7 - Cluster support on IPR

Figure 7 suggests that a high number of the clusters do provide IPR support.

Does your cluster provide support on NDA?

7 responses

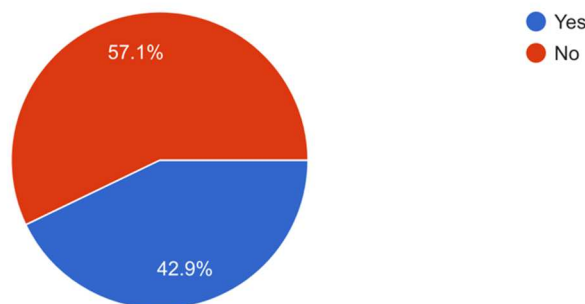


Figure 8 – Cluster support on NDA

Figure 8 is a mixed result but also alarming as NDA's are essential for SMEs before sitting down to negotiations with potential licensees or collaborators/investors. The answer here would suggest that the clusters are providing IPR support but not referring to the essential mechanism relating to licensing.

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Does your cluster provide support on MoU?

7 responses

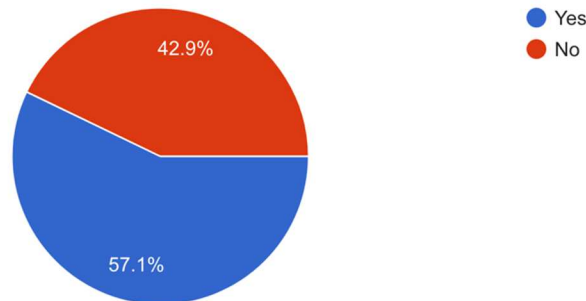


Figure 9 – Clusters provide support on MoU

Again Figure 9 shows a mixed response which suggests that the IPR provided by companies concentrate ownership transfer and not licensing or that it may be a case of different strategy.

If yes, in what form?

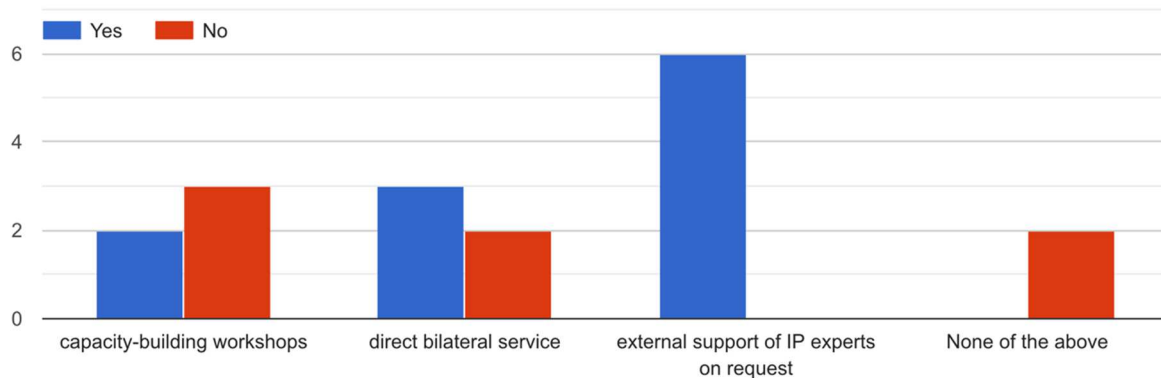


Figure 10 – Form of support services for intellectual property background and foreground issues IPR, NDA and MoU etc

Figure 10 histogram shows that 2 respondents do not provide a service on IP issues and the majority of the clusters do utilize external support of IP experts on request. Capacity building workshops was not as popular as direct bilateral services.

2.4 Cyber security

Questions for this section have been extracted from ECS - Industry 4.0 and ICS Sector Report; Cyber security for the industry 4.0 and ICS Sector and Gaps in European Cyber Education and Professional Training.

The following set of questions were included because cyber security is the main theme of the project and during the IoT SWC 2019 side event CYBER SECURE LIGHT & DIA JOINT EVENT "DIGITAL



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

INDUSTRY: disruptive solutions to shape the future of SMEs”. One of the KEYNOTE PANEL – discussion round table DIGITAL INDUSTRY: disruptive solutions, challenges and market opportunities for SMEs Panelists: Ms Ana Ayerbe Fernandez-Cuesta (a board Director of ECSO) **mentioned that everyone should have a knowledge of cyber security and training including children.**

The industry 4.0 and ICS Sector report outlined that “challenge 1): Safety-Security convergence: starts with risk-assessment and threat analysis by joint security & safety professionals, enabling to qualify and quantify cyber threats and their potential impact on industrial processes. Special focus is set to solve contradicting requirements between safety and security in the system design to avoid “fail open” situation.”

Overwhelming the response to this question showed a lack awareness of risk-assessment and threat analysis.

Does your Cluster offer risk-assessment and threat analysis (Threat and Risk Assessment - TRA) to SMEs?
7 responses

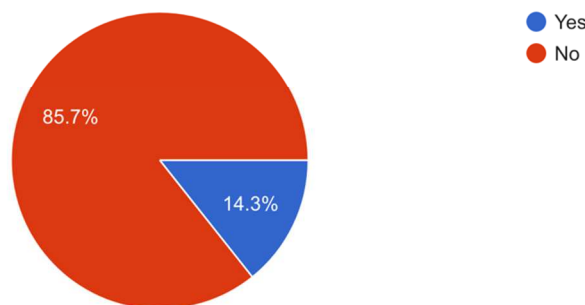


Figure 11 – Clusters that offer risk-assessment and threat analysis to SMEs

The following question requested the respondents to offer an insight on what type of TRA process they provide.

If yes, what type of assessment is implemented for example; software (Symantec Risk insight), system's security policy (NIST SP800-30 Risk Management Guide for Information Technology Systems), ANSSI (National Agency for Information System Security)?

Only Pôle SCS answered this question which may be expected as they are the project cyber security experts.

“Pôle SCS has just launched in 2020 a new service offer on cyber security risk assessment carried out by external cyber security experts. “Service Accompagnement CyberSécurité – Maîtriser vos

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

risques cyber grâce à un diagnostic (évaluation des risques cyber) et un accompagnement individuel”.

If no, would you like to receive information about Threat and Risk Assessment for your SMEs?
7 responses

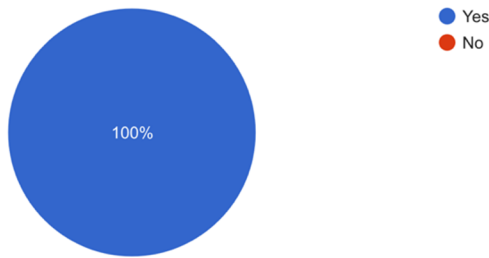


Figure 12 – Threat and Risk Assessment

As illustrated in Figure 12 all of the respondents feel that TRA is a necessary services to provide for their SMEs and should be implement as a novel customised cluster business support services. Intrusion detection systems (IDS)² are designed for the automatic detection of malicious attacks. They collect and analyze network traffic, security logs, audit data, and information from key points of a computer system, to check whether there exit security violations in the system. The respondents provided a clear answer stating that they wish to learn more about this system.

Is your cluster interest in learning about detecting intrusions on Industrial Control Systems?
7 responses

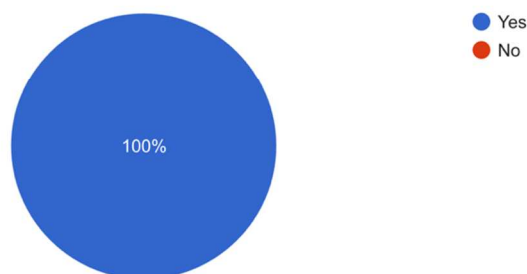


Figure 13 – Interests in learning about detecting intrusions on industrial control system

Figure 14 shows that none of the partners have a cyber security strategy for their clusters.

² <https://journals.sagepub.com/doi/full/10.1177/1550147718794615>



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Does your cluster have a cyber security strategy for competencies through all levels from strategic decision makers to the staff in operations?

7 responses

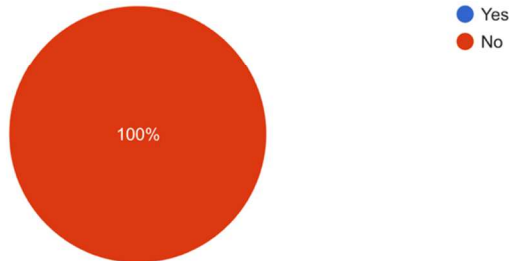


Figure 14 – Cyber security strategy for competencies through all levels from strategic decision makers to the staff in operations

The following question indicates that the majority of project clusters do not see this as essential to their future goals.

If no, do you wish to receive information about such strategies?

7 responses

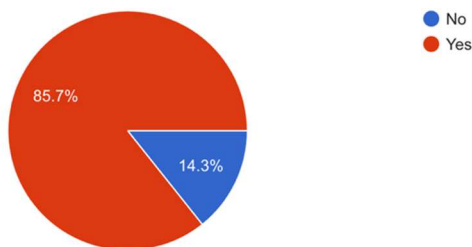
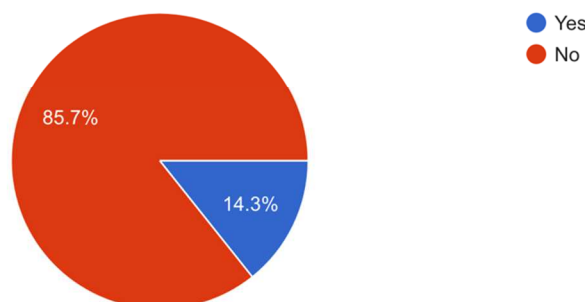


Figure 15 – Do you wish to receive information about cyber security strategies

Only one respondent; Pôle SCS stated that they provide cyber security training and again this is no surprise but each of the clusters have knowledge on cyber security and understand the risks. However; on most projects cyber security is always reviewed as an after thought, which drives up the costs of a project.

Does your cluster provide security training to users and managers, SMEs?

7 responses





D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Figure 16 – Does your cluster provide security training to users and managers, SMEs

If yes, what type of certificate and standard?

Pôle SCS presented details of the type of standards that is presented by their cluster; “We, as a cluster, do not offer the training directly, but some of our members offer official ISO standards training. If any member is in need of such certification, we provide them with the contact information of the different providers that offer the certification.”

Only one of the cluster partners stated that they did not require information on different types of training certificates and standards.

If no, do you wish to receive information on different types of training certificates and standards?
7 responses

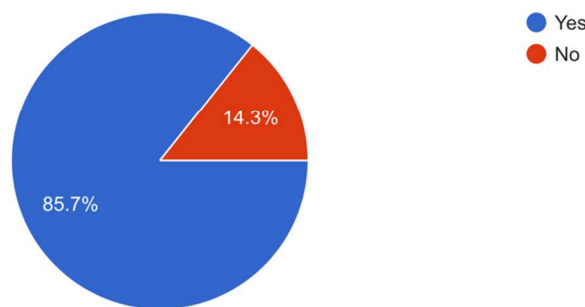


Figure 17 – Do you wish to receive information on different types of training certificates and standards

2.5 Summary

In summary, the respondents indicated a level 2 acknowledgement of how technology transfer is currently managed within their cluster, thus suggesting a significant need for improvement. On a positive reflection the clusters do have an agreement with academia/technology providers and that they are focused on the direction of enabling their SMEs to gain support for technological transfer process such as; “training, technological development, assessment and consulting”. However; there is a need to educate the clusters on the benefits of setting up/training to engage in technology transfer team/group that facilitate relations between companies and R&D providers. Public funding is the main source of financial services provided by the cluster, however private finance was also deemed necessary for startups and SMEs. In order, to help SMEs with receiving information on financial instruments; dissemination via social media was recognized by many clusters’, other important practices are; i) bilateral meetings (phone and video conference) and plenary sessions/workshops for members; ii) facilitate access to information, relevant platforms and portals;



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

and iii) consultation service on project ideas and feasibility. To improve their practice on financial offerings and support, the clusters identified that by obtaining more knowledge on topics such as online training, webinars by experts would be considered as an improvement as too is finding sources of contact for financing both public and private funding to be matched with SMEs.

As a quagmire result the clusters provide IPR support but not the essential support for licensing such as NDAs. In essence a strategy for SMEs to be able to negotiate with potential investors should be provided. Another negative result included the lack of awareness of risk-assessment and threat analysis. Pôle SCS identified a novel service that they have just implemented in 2020 on cyber security risk assessment carried out by external cyber security experts. “Service Accompagnement Cyber Sécurité – Maîtriser vos risques cyber grâce à un diagnostic (évaluation des risques cyber) et un accompagnement individuel”. Furthermore, the clusters do acknowledge that information about TRA and intrusion detection systems are necessary services to be provided to their SMEs and should be implement as a novel customised cluster business support services. Unfortunately; none of the partners have a cyber security strategy for their clusters and the majority of the project clusters do not see this as essential. Also, only one respondent stated that they provide cyber security training. And again Pôle SCS presented details of the type of standards that is presented by their cluster. However, the majority of cluster partners stated that they did require information on different types of training certificates and standards.

3 REVIEW OF EXISTING FINANCING SCHEMES AVAILABLE AT REGIONAL, NATIONAL AND EUROPEAN LEVEL

In the following section, we will focus on available financing schemes for SMEs in the regions and countries of the CSL consortium partners, as well as at European level. We will also focus on the opportunities for financing cluster themselves.

3.1 Regional and national funding opportunities

3.1.1 In France

In PACA/SUD region, covered by Pôle SCS, SMEs can apply to the PIA3 regional scheme. It funds the feasibility or the development /industrialization of individual SMEs projects based in the region, with a funding up to 200 000 euros for feasibilities and 500 000 euros for industrialisation projects, if they can justify of a healthy financial situation. The call is opened all year long to projects fitting in



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

the Regional Innovation Strategy priorities (energy, aerospace, marine, agrifood, health and ageing well, tourism, digital technologies, optics and photonics, chemicals & materials). The funds (30 millions euros for the period 2018-2020) are managed by the Regional Council and BPI France, the French public bank for innovation. More information, in French, can be found there: <http://innovationavenir-provencealpescotedazur.fr/>

At French national level, the call for projects "PSPC-Regions" is a support scheme used by the Future Investment Programme (PIA) which aims to select research and development projects that are structuring for competitiveness. The call expects R&D projects led by a consortium that brings together at least two industrial or service partners including an SME and a research partner with budgets ranging from 1 to 4 million euros.

3.1.2 In Italy

The calls for proposals for SMEs of the Veneto Region within the OP ERDF Programme 2014-2020, related to innovation, internationalisation, R&D are the following:

- OP ERDF Veneto Region Programme, Action 1.1.2 Support for the purchase of services for the strategic organizational and commercial technological innovation of enterprises
- OP ERDF Veneto Region Programme, Action 1.1.4 Support for collaborative R&D activities for the development of new sustainable technologies, new products and services
- OP ERDF Veneto Region Programme, Actions 3.4.1 and 3.4.2 Internationalization and export services

Other support initiatives for SMEs exist in Veneto Region:

- **Veneto Digital Agenda 2020** - the Veneto Region strategic commitment to promote the Company and the Digital Economy in its territory.
 - Openveneto portal – it is the aggregator of Open Innovation projects of the Veneto Digital Agenda programme, aimed at down the barriers between the Public Administration, the production sector, the academic world and active citizenship.
 - Innovation Lab Veneto
- **SMACT Competence Center** - The Competence Center of Veneto Region focused on the following specializations: Social network, Mobile platforms & Apps, Advanced Analytics and Big Data, Cloud, Internet of Things. It offers support services and funding opportunities for SMEs in the following areas:
 - business orientation, especially for SMEs, through the preparation of a series of tools aimed at supporting them in assessing their level of digital and technological maturity;
 - training for companies, in order to promote and spread Industry 4.0 skills on the production line and on real applications;



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- innovation projects, industrial research and experimental development, proposed by the companies, and the supply of technology transfer services in the Industry 4.0 area, also through actions to stimulate the demand for innovation by companies, in particular SMEs.
- **t2i Trasferimento Tecnologico e Innovazione** – the European Digital Innovation Hub managed as Consortium for Innovation of Chambers of Commerce Treviso-Belluno, Verona and Venice Rovigo Delta Lagunare, supported by Confindustria Servizi Innovativi e Tecnologici (CSIT) with focus on cloud-based hpc simulation.

3.1.3 In Poland

The calls for proposals for SMEs within the National **Intelligent Development Operational Programme 2014-2020**, financing research, development and innovation are the following:

- Action 1.1 Project Research + Development of enterprises, Sub-measure 1.1.1. Industrial research and development works carried out by enterprises - Support for industrial research and experimental development work or experimental development work carried out by entrepreneurs and consortia + The "Fast Path - CORONVIRUSES" competition for entrepreneurs (SMEs and large) and consortia (also with scientific units)
- Action 2.1 Support for investments in infrastructure Research + Business development - Under the measure, support is provided for the creation or development of research and development centers for entrepreneurs
- Action 2.1, Sub-measure 2.3.2 Innovation vouchers for SMEs - Support granted for financing services for SMEs implemented by scientific units, contributing to the development of their products (products and services). Additionally, the support may include the implementation of initial investment related to the implementation of technological (product or process) innovation, which is the subject of the service commissioned to the scientific unit under Sub-measure 2.3.2 (investment component).
- Action 2.1, Sub-measure 2.3.3 Internationalization of National Key Clusters - Support for projects aimed at increasing the innovation and competitiveness of enterprises operating under National Key Clusters on international markets
- Action 2.1, Sub-measure 2.3.5 Design for entrepreneurs - Support granted to SMEs (excluding entrepreneurs from the Eastern Poland Macroregion) for the implementation of projects aimed at the development of the applicant enterprise by developing a new design project through which a new or significantly improved product (product or service) will be implemented.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- Action 2.1, Sub-measure 2.3.6 Support for enterprises in preparation for participation in European programs - Grants for Eurogrants
- Action 3.2. Support for the implementation of work results - Research + Development - Sub-measure 3.2.2 Loan for technological innovations
- Action 4.1 Research and development works, Sub-measure 4.1.4 Application projects - Application projects (projects involving industrial research and / or experimental development carried out by consortia of scientific units and entrepreneurs).

The aim of the above mentioned calls is to improve the innovativeness of the Polish economy as well as to develop cooperation between the science sector and business.

Moreover, as regards the Świętokrzyskie Region covered by SIPH – Klaster Innowator, there are several financing opportunities for SMEs within the **Regional Operational Program Eastern Poland for 2020:**

- Sub-measure 1.1.2. Development of startups in Eastern Poland - Support for business development of startups in the macro-region of Eastern Poland
- Measure 1.2 Internationalization of SMEs - Comprehensive, individual, activity-oriented support related to the development and preparation for implementation of a new business model in SMEs related to the internationalization of their activities
- Sub-measure 1.3.1 Implementation of innovation by SMEs - Support for projects leading to the creation of innovative (at the country level) products by implementing (own or acquired) results of R&D works
- Measure 1.4 Formula for competition - Support for SMEs for carrying out a design audit and developing a design strategy (Stage 1) + Support for SMEs for the implementation of the design strategy developed under the first stage (i.e. implementation of audit recommendations in order to introduce product innovation) (Stage II).

3.1.4 In Hungary

The Economic Development and Innovation Operational Programme aims to stimulate the economies of the less developed regions in Hungary, including the regions of Archenerg - Dél-Alföld. Its most important priorities are the competitiveness of small-and medium sized enterprises, research and innovation, and employment. The programme also aims to develop the enterprises' energy efficiency, and information and communication technologies.

Among its funding priorities, the following are of particular interest for SMEs:



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- Increasing the competitiveness and productivity of SMEs
- Research, technological development and innovation
- Infocommunication developments
- Energy
- Employment
- Competitive labour force

The Call for proposals include the following current funding opportunity for SMEs:

- GINOP-1.2.8-20 (COUNTRY) / VEKOP-1.2.6-20 (PEST COUNTY) Support for developments to help micro, small and medium-sized enterprises adapt to modern business and production challenges - The primary objective of the call is to mitigate the economic impact of the coronavirus by keeping the number of employees in domestic enterprises (especially micro-enterprises) as high as possible, as well as by developing support in line with each SME classification and number of employees.

In addition to the above, the Call aims to increase the productivity of Hungarian SMEs and to support their technological renewal.

3.1.5 In Slovenia

The **Public Fund of Republic of Slovenia for Entrepreneurship** or shortly The Slovene Enterprise Fund (the Fund or SEF) is established with purpose of improving the access to financial resources for different development – business investments of micro, small and medium-sized enterprises (SMEs) including with financial resources for SMEs start-up and micro financing in the Republic of Slovenia. Every year the Fund is offering proper financial solutions for development – business projects in Slovenian entrepreneurial sector via financial engineering, which is majorly based on financial instruments with refundable means (loans, guarantees for loans, subsidised interest rates, venture capital) which allows combining of financial resources of different financial institutions (financial lever). Through offering favourable financing resources want to ensure that state aid are distributed in all phase of development life cycle; from seed companies, start up's and till the phase of further growth and development.

SEF offers financial products in the form of:

- START UP INCENTIVES (grants) for establishing an enterprise
- SEED CAPITAL (convertible loans and capital investments) for the entry and expansion on the market
- VENTURE CAPITAL (mezzanine capital) for rapid global growth
- MICROCREDITS (direct SEFs credits) for specific target groups for current operation



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- GUARANTEES for bank loans with interest rate subsidy for current operation and further growth

Financial incentives are divided according to the life cycle phases of an enterprise:

1. Development phase/product development/
2. Development phase/entry into the market/
3. Development phase/global growth/
4. Development phase/further growth/

Financial incentives are intended to finance various development business activities, such as: Start up of an enterprise, own development and innovation, rapid global growth, women entrepreneurship, socially useful products and services, creative industries, transfer of ownership between generations, business model reengineering, other.

Another important financial support is offered by the **SPIRIT Slovenia - Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology**, that issues public tender for the establishment or upgrade of electronic commerce in SMEs in the period 2019-2022 "E-COMMERCE 2019-2022".

The purpose of the public tender is to support SMEs by co-financing the eligible costs of establishing or upgrading e-commerce, which can easily enter global value chains and new markets, increase the international competitiveness of their business, improve and accelerate interaction with business partners abroad. they send and collect information more efficiently and improve relationships throughout the supply chain.

Other support initiatives include the **Digital Innovation Hub Slovenia** and the Ministry SRIP tenders.

DIH Slovenia is Industry Digital Transformation one-stop-shop in Slovenia and beyond. It creates awareness and provide services to grow digital competencies, share digital experience and case studies locally, regionally and internationally, influence the government to adapt regulation and open its data to foster entrepreneurship.

Ministry of Economic Development and Technology published a public tender Support for Strategic Development Innovation Partnerships (SRIP) in priority areas of smart specialization aimed at:

- Strengthening the research-development-innovation cooperation of otherwise independent stakeholders, ie the economy, research organizations and other relevant development



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

stakeholders in order to systematically integrate into international value chains and provide a comprehensive support environment.

- establishing SRIPs in all priority areas of the Smart Specialization Strategy (S4): smart cities and communities, smart buildings and home with a wooden chain, networks for the transition to a circular economy, sustainable food production, sustainable tourism, factories of the future, health - medicine, mobility and the development of materials as end products..

3.1.6 In Spain

There are numerous funding opportunities for SMEs both at national and regional level.

The most relevant at national level are the following:

- **Innovative Business Groups** - The Innovative Business Groups is a call at national level, specifically for those Clusters that are certified as an Innovative Business Group (IBG). All members of a certified Cluster are automatically members of the Innovative Business Group and, therefore, can participate in project proposals. It is mandatory for all companies participating in project proposals to be a member of an IBG and it is also mandatory for every proposal to include one IBG (Cluster) (grant)
- **Industrial Technology Development Centre (CDTI) and its R&D projects in international technological cooperation** - The call aims to promote technological cooperation with entities of other countries and to train Spanish companies to improve their participation in international programs (grant).
- **CDTI - Global Innovation Line** – the purpose is to finance investment projects in innovation and incorporation of innovative technology for growth and internationalization of companies that carry out their activities in Spain, both in facilities located in Spain and abroad. These projects involve the incorporation and adaptation of technologies to adapt to the requirements of new markets, improve the company's competitive position and generate additional added value (loan).
- **CDTI – Direct Innovation Line** - The call aims to support projects of an applied nature, very close to the market, with medium / low technological risk and short periods of return on investment, which manage to improve the competitiveness of the company by incorporating emerging technologies in the sector (grant).
- **CDTI – Science and Innovation Missions** - The call aims to support large strategic initiatives, intensive in R&D and developed in public-private collaboration, incorporating the latest scientific and technological trends, and challenges, to identify and resolve the challenges of production sectors critical to the Spanish economy.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- “SMEs” Missions – consortium of 3 – 6 companies where all members are SMEs. The leader of the project must be a Medium Enterprise.

The currently existing financing schemes and call for proposals available at regional level – Catalonia:

- **INNOTECH Grants for R&D projects between Catalan companies and TECNIO Centres** - Grant aims to support collaborative R&D projects between Catalan companies and TECNIO certified Public Technology Developers.
- **IRC Grants for Competitiveness Reinforcement Initiatives** - Grants for business competitive reinforcement projects for cluster members of the Catalonia Cluster Program of ACCIÓ supporting:
 - Creation and management of supply environments
 - New marketing strategies
 - Projects intended to increase the level of technical knowledge, trends, business management, etc.
 - Development of specialized talents
 - Impulse the growth of the start-up ecosystem
 - International cooperation projects
 - Creation of proposals for European funding lines
 - Alliances between clusters (National and international)
- **Innovation Coupons** - The objective of this grant is to encourage the subcontracting of innovation services, carried out by suppliers certified by ACCIÓ, to increase the competitiveness of companies. Four types of the coupon support are available:
 - Innovation Coupons
 - Circular Economy Coupons
 - Taxation Coupons
 - Industrial Property Coupons
- **Industry 4.0 Coupons** - The objective of the grant is to accelerate the digital transformation of Catalan companies, placing special emphasis on SMEs and promoting their competitiveness. Support companies' process of digital transformation with their new challenges, promote smart, sustainable and inclusive growth, giving coherence to investments in search, renewal and optimizing the impact on economic and social development.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- Industry 4.0 Assessment Coupons – The objective is to identify opportunities to implement Industry 4.0 technologies and to support companies in adapting to the strategic, organizational and cultural changes resulting from this implementation.
- Industry 4.0 Implementation Coupons – The objective it to carry out actions related to the Digital Transformation Plan of the company.

3.2 European opportunities for SMEs

There are 3 main instruments available at European level to fund R&D activities of innovative SMEs:

- EIC Accelerator
- Fast Track to Innovation
- Eurostars

3.2.1 EIC Accelerator

The EIC Accelerator (previously SME Instrument) is designed for small and medium-sized enterprises (SMEs) with radically new ideas underpinned by a business plan for rolling out marketable innovation solutions and with ambitions to scale up. It targets single for-profit SMEs only - this means that single companies only (including young companies and start-ups) can apply (as opposed to project consortia). There are no set topics, so SMEs from all sectors can apply, as long as they are based in Horizon 2020 eligible countries.

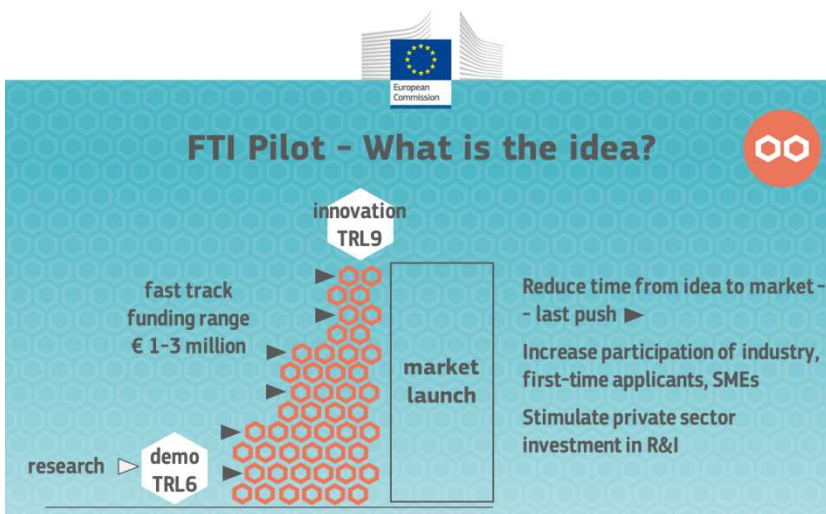


Grants finance activities from TRL 6-8, from 500 k€ to 2,5 million euros (covering up to 70% of eligible costs). Activities above TRL 8 can be financed through blended finance, with up to 15 million euros of equity investment. With the view of facilitating the commercial exploitation of the innovation activities, the EIC Accelerator Pilot proposes business acceleration services. These include support for further developing investment readiness, linking with private investors and customers through brokerage activities and events (including trade fairs), assistance in applying for further EU risk finance, and a range of other innovation support activities and services offered via the Enterprise Europe Network (EEN). The EIC Accelerator pilot is very selective: success rates are around 5%. However, companies can resubmit their projects several times to improve their chances of success as this funding scheme is recurrent (with four deadlines per year) and will remain within the Horizon Europe programme.

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

3.2.2 Fast Track to Innovation

The Fast Track to Innovation (FTI) provides funding for bottom-up proposals for close-to-market innovation activities in any area of technology or application. This thematic openness – combined with the possibility for all kinds of innovation actors to work together and deliver innovation onto the market and/or into society – is set to nurture trans-disciplinary and cross-sectoral cooperation. Proposals for funding must be submitted by consortia comprising between three and five legal entities established in at least three different EU Member States or countries associated to Horizon 2020.



Actions are to be 'business-driven' because they are intended to give breakthrough innovation ideas the last push before shaking up the market. Substantial industry involvement in FTI actions is mandatory to ensure quick market take-up ('quick' meaning within a three-year period after the start of the

FTI-action).

This industry involvement implies:

- either the allocation of at least 60% of the budget to industry participants in the consortium,
- or the presence of a minimum number of two industry participants in a consortium of three or four partners,
- or of three industry participants in a consortium of five partners.

As for other innovation actions, EU funding levels are fixed at 70% of the eligible costs. The maximum EU contribution per action amounts to EUR 3 million.

Proposals are evaluated and ranked and funding decisions taken after three cut-off dates each year. Proposals are built on a business plan, and focus foremost on achieving high impact: a high degree of novelty comes with a high chance of either success or failure.

Though very competitive (with less than 5% success rate), the FTI scheme is well suited for collaborative projects such as the ones to be developed in the framework of the Cyber Secure Light Project.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

3.2.3 Eurostars

Eurostars is a joint programme supporting R&D performing small and medium sized enterprises (SMEs). It is co-funded from the national budgets of 36 Eurostars countries and by the European Union through Horizon 2020. Participating countries earmark funds for their participants following national funding rules and procedures.



Eurostars supports international innovative projects led by research and development-performing small- and medium-sized enterprises (R&D-performing SMEs³). With its bottom-up approach, Eurostars supports the development of rapidly marketable innovative products, processes and services

that help improve the daily lives of people around the world.

The consortium must be formed with any other entity based in one of the 36 Eurostars countries.

The level of funding varies for each partner and depends of its category. For instance, in France:

- 40% for Eurostars SMEs
- 30% for enterprises of less than 2000 employees
- 40% for laboratories (maximum 100 k€)

Projects can be granted up to 3 million euros, but the companies must show a solid financial situation. With 30% success rate, Eurostars is a funding scheme more accessible to SMEs than the two previous ones.

3.3 European opportunities for clusters

In the next chapter , we will focus on some interesting support schemes that can fund clusters activities.

³ An SME that invests 10% of its turnover in R&D, or of which 10% of the staff is dedicated to R&D.



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

3.3.1 Cluster support schemes

COSME is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises running from 2014 - 2020 with a planned budget of EUR 2.3 billion. COSME offers several opportunities to clusters:

- COSME Cluster Excellence, for the improvement of cluster management techniques towards excellence;
- Cluster Go International, for the internationalisation of clusters and cluster members (SMEs), outside Europe;
- European Strategic Cluster Partnerships for Smart Specialisation Investments, which is the funding scheme of the Cyber Secure Light project.

Such schemes are available to cluster consortia (3 partners of 3 different countries minimum) and will fund networking activities, exchanges of best practices, mentoring, SMEs innovation projects and business development support, etc.

3.3.2 Cascade funding



Clusters may now search for funding that can fund their own activities but also the ones of their members. Cascade funding schemes provide such opportunities to clusters. The principle is that partners team up to build a proposal and ask some funding of which a significant part will be redistributed towards SMEs, through an open call process. So far, only Horizon 2020 provides such calls opportunities. The most common instrument for cluster is the INNOSUP-01, Cluster facilitated projects for new industrial value chains programme. This call expects proposals having a strategic vision for building new industrial value chains across the EU Member States and Associated Countries. They

shall specifically focus on integrating and supporting groups of SMEs in collaboration with other innovation actors in addressing specific problems and challenges. Cluster organisations or other SME intermediaries shall be invited to set up collaboration and networking activities for SMEs and create a favourable "open space" for cross-sectoral fertilisation and value chain innovation to take place. In this call, at least 75% of the total proposed



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

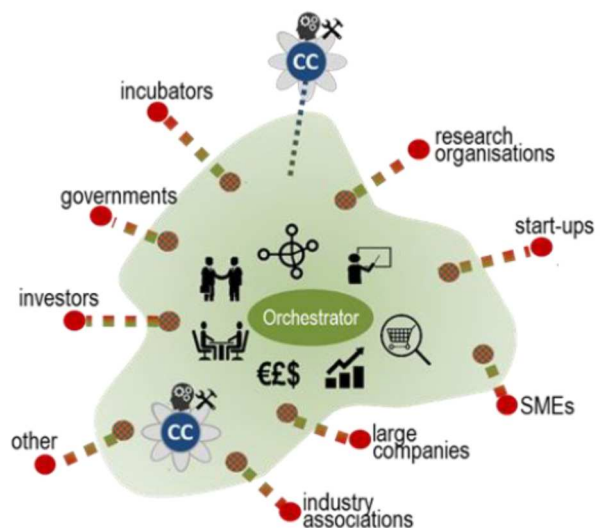
budget shall be allocated to support innovation in SMEs directly, whereby the SMEs benefit by either participating in the consortium or by receiving financial and/or other support as a third party (enterprise).

Other cascade funding opportunities exist in the framework of Horizon 2020, such as under the ICT programme, the Next Generation Internet, Smart Anything Everywhere, I4MS (Innovation for Manufacturing SMEs)... but these calls are targetting specific sectors (internet, microelectronics, manufacturing...), whereas INNOSUP-01 is sector agnostic.

Such cascade funding opportunities are an excellent funding scheme for cluster, although they are, again, highly competitive.

3.3.3 Digital Innovation Hubs

As part of the next long-term EU budget - the Multiannual Financial Framework - the Commission has proposed the Digital Europe programme, the EU's programme focused on building the strategic digital capacities of the EU and on facilitating the wide deployment of digital technologies, to be used by Europe's citizens and businesses. With a planned overall budget of €9.2 billion, it will shape and support the digital transformation of Europe's society and economy. The Digital Europe programme will fund, among other, a number of European Digital Innovation Hubs (EDIH).



A European Digital Innovation Hub (EDIH) is a single organisation or a coordinated group of organisations with complementary expertise, with a not-for-profit objective that support companies – especially SMEs and mid-caps – and/or the public sector in their digital transformation. EDIHs offer services such as:

- Test before invest
- Skills and training
- Support to find investments
- Innovation ecosystem and networking opportunities.

A national call, followed by a European call, will fund between 130 and 260 hubs, in the main technology sectors: High Performance Computing, Artificial Intelligence and Cyber Security. Cluster, and in particular ICT clusters, can play a role in the elaboration of such tools. Also, the international



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

networking dimension (complementarity with other EDIH) will be an important point. Therefore, becoming an EDIH is certainly a strategic opportunity for some European clusters already addressing digitalisation services to SMEs.

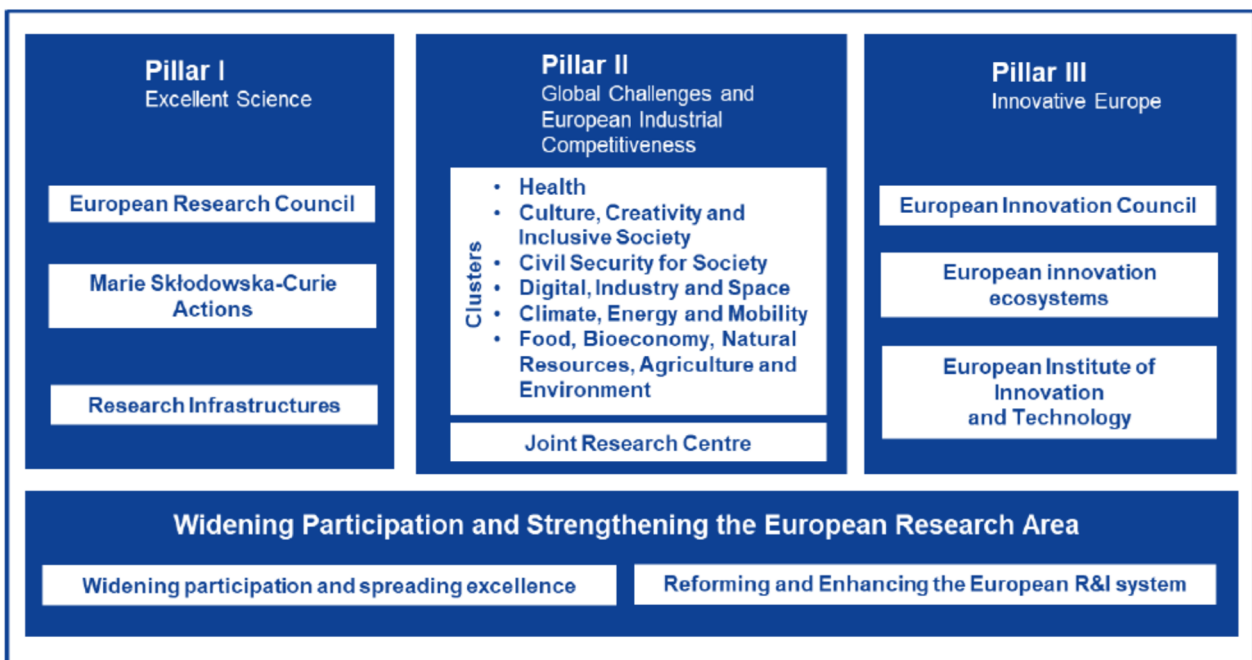
EDIH will be funded under the Digital Europe programme.

3.3.4 Horizon Europe

Horizon Europe is the next Framework Programme for Research and Innovation of the European Commission. It will last from 2021 to 2027 and will amount to 94,1 billion euros, which is more than the current Horizon 2020 programme.

Horizon Europe will be structured in three pillars, supported by activities aimed at widening participation and strengthening the European Research Area:

- Pillar I, Excellent Science will reinforce EU scientific leadership through the European Research Council (ERC), Marie Skłodowska-Curie Actions and Research Infrastructures.
- Pillar II, Global Challenges and European Industrial Competitiveness will take forward the societal challenges and enabling and industrial technologies to better address EU and global policy priorities and accelerate industrial transformation. Pillar II includes six broad thematic “clusters” of activities.
- Pillar III, Innovative Europe, focuses on stimulating, nurturing and deploying disruptive and market-creating innovations, and on enhancing European ecosystems conducive to innovation, including through the new European Innovation Council.





Co-funded
by the COSME programme
of the European Union

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

The first calls should be launched during the second semester of 2020 for deadlines in the beginning of 2021. Most of the funding schemes defined before (EIC accelerator, FTI, clusters, INNOSUP and cascade funding in general), will be reconducted, with slight changes, within Horizon Europe.

3.4 Access to private finance: assessment of the Investment Potential of SMEs

In 2017, the European Commission's Directorate General for Research and Innovation (DG RTD) commissioned Action 10 with a view to assess the investment potential of SMEs emerging from EU R&I collaborative programmes. This Action 10 was carried out by an Independent Investment Expert Group (IIEG) as a follow-on of Action 9 "Assessing the Investment Potential of Emerging SMEs from Phase 1 and Phase 2 of the SME Instrument (now EIC Accelerator)" in 2016, carried out by the same IIEG.

SME's investment readiness levels were assessed against four dimensions: leadership team, product, market and financial strategy. Subsequently, the experts have classified the SMEs into three major categories: investment ready, almost ready and non-ready. The assessment methodology builds upon the work of Action 9, and has been customised to meet the typology of beneficiaries of FP7 and Horizon 2020 collaborative R&D&I programmes.

Following analysis, SMEs have been classified as market driven SMEs (referred to as Case 1) with either (a) high growth and/or scale up potential (Case 1A) or (b) low to moderate growth potential (Case 1B). This analysis has also identified SMEs that provide support to other consortium partners in these EC programmes (referred to as Case 2).

Companies and projects span different innovation cycles (e.g. short innovation cycles as opposed to medium and long innovation cycles (deep-tech companies) that require several years from lab-based prototype to commercialisation). The time to market and financing needs vary substantially between these types of companies. At the heart of this investment readiness analysis is the identification and study of SME's against innovation cycles they belong to:

- Short Innovation Cycle (SIC) (e.g. ICT sector), typically 1-4 years from proof of concept to commercialisation.
- Medium Innovation Cycle (MIC) (e.g. manufacturing, food, environment sectors), typically 4-8 years from proof of concept to commercialisation.
- Long Innovation Cycle (LIC) (e.g. biotech, health, space, transport, nanotech sectors), typically 6-12 years from proof of concept to commercialisation.

Findings suggest that Case 1 companies (market-driven SMEs) represent 97% of investment ready SMEs, with Case 1A (high growth potential SMEs) representing ~ 90% of all the investment ready SMEs. Around 50% of the "ready" and "almost ready" MIC and LIC SMEs are seeking on average



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

between 1-5M€ of private investment. In contrast, >50% of SIC SMEs are seeking on average around 1.5M€. It is evident that continued and substantial grant funding is required to sustain and grow the innovative SME base in Europe, including iterative versions of programmes such as Horizon 2020, Horizon Europe and its fully-fledged European Innovation Council (EIC). These funds, however, need to place a strong focus on entrepreneurs, SMEs and innovators, with a particular emphasis on the nature, scale and time needed to develop these opportunities. Not surprisingly, no correlation has been found between higher TRL levels and investment readiness levels. Even amongst SMEs with higher TRL levels, they show shortcomings in the areas of market readiness, financials and exit strategies. MIC and LIC SMEs routinely underestimate the challenges around time, effort and resources needed for scale up of processes and products to full commercial scale. It is amply evident from findings that European MIC and LIC SMEs depend very significantly on grant funding from EU sources to further develop their product and market demonstration activities, confirming the need for initiatives such as the European Innovation Council (EIC) aiming at market-creating innovation, scaling-up of businesses and attraction of private financing.

This report recommends the implementation of SME support programmes that would prepare SMEs to become commercialisation ready and attract investment. Findings clearly demonstrate a number of shortcomings in SMEs' readiness levels in attracting external private investment.

There is also a need to support patient venture capital provision (through EIB schemes or other), particularly for MIC and LIC SMEs to address the 1-5 M€ gap. These SMEs are not the same as SIC companies with respect to their risk profile, time cycles and market engagement challenges. This could be augmented with mechanisms for blended finance schemes/parallel financing for SMEs from multiple sources (EU grant, private capital, debt financing) through appropriate screening, assessment and financial award structuring mechanisms.

The full version of this report is available at:
<https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=38366&no=1>

4 REVIEW OF GOOD PRACTICES REGARDING INTELLECTUAL PROPERTY RIGHTS

This last section will restate the key messages discussed on the webinar organized by CSL consortium on March 19 2020 with Michele Dubbini on *The Importance of IP for SMEs*⁴

⁴ The recorded webinar can be located at the following address
<https://attendee.gotowebinar.com/recording/2075004247156805384>



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

Michele introduced the goals of *European IP Helpdesk* to the consortium such as:

- Service initiative of the European Commission providing free-of-charge first- line support on IP-related issues;
- Helping current and potential beneficiaries of EU-funded projects, researchers and EU SMEs engaged in cross- border business manage their intangible assets.

He also highlighted the organisations publications:

- Online library: fact sheets, case studies, IP guides and charts, infographics, templates, FAQs
- Bulletin: thematic online magazine published twice a year
- Newsletter: Sent via email bi-weekly
- Fact Sheet: New Directive on Copyright and Related Rights in the Digital Single Market

http://www.iprhelpdesk.eu/sites/default/files/newsdocuments/European%20IP%20HD_Fact_Sheet_Copyright_final_0.pdf

The roadmap of the webinar featured the following sections:

- Why is IP important?
- IP basics;
- IP as a business asset;
- Support services & useful tools.

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

4.1 Why is IP important


www.iprhelpdesk.eu

Smartphones draw on an increasing number of technology fields



IP is all around us

Along with human creativity and inventiveness, intellectual property is all around us.

©WIPO

By illustrating all of the component parts of a smartphone Michele demonstrated to the cluster partners that along with human creativity and inventiveness, intellectual property is all around us. And through this example he further emphasized that Intellectual Property Rights, as exclusive rights, allow your organisation to prevent competitors from using your intangible assets.

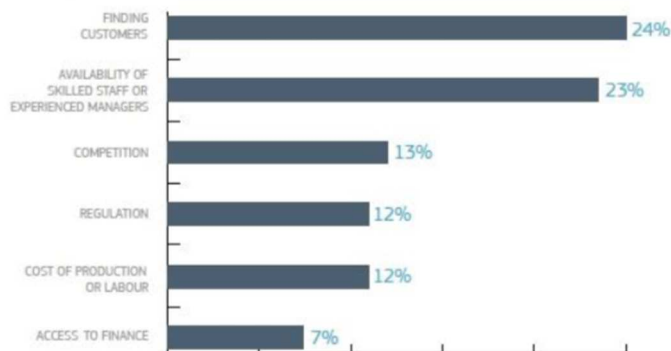
BUT Intellectual Property Rights require action: ownership ≠ protection!

Therefore, it is vital that your Intellectual Property asset be: ✓ Protected ✓ Managed ✓ Enforced. In more references to Why IP is important Michele also outlined that European SMEs Problems: 2017/2018 report listed in the following order the main problems; i) finding customers; ii) availability of skilled staff or experienced managers; iii) competition; iv) regulation; v) cost of production of labour; vi) access to finance. In Michele opinion the use of IPR can assist with all of these issues.

European SMEs Problems: 2017/2018



EU-28 SMEs' most pressing problems in 2017



Source: 2017 Safe Survey

Source: 20 November 2018 - The 2017/2018 Annual report on European SMEs

In further acknowledgement to IPR Michele highlighted the following; “Innovation is essential for economic growth, and the majority of SMEs (58%) claim to be innovative. IPR owners are more likely to be innovative, with 73% claiming to be so, compared with 42% of non-owners. Most innovation is in the development of new products, with 63% of IPR owners and 31% of non-owners innovating in this area. In addition, IPR owners are almost twice as likely as non-owners to collaborate with other organisations on new innovations. Universities and academia are the most common collaboration partner for IPR owners, being involved in almost a third (32%) of cases. Non-owners that collaborate prefer to partner with large companies (34%).⁵ In relation to Patents, collaboration and commercializing: “This study shows that SMEs typically rely on European patents to protect high-potential inventions. Up to two thirds of these inventions are commercially exploited – around half

⁵ New EUIPO study - 2019 INTELLECTUAL PROPERTY SME SCOREBOARD, Innovation — Perceptions and Reality



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

exclusively by an SME itself and half with a partner, usually from another European country. European patents make this process much easier by providing protection in up to 44 different national markets”.

In order to directly link the topic with the SMEs Michele offered the question How Does this Affect Your Business? And in response he noted that it is likely that SMEs are using or creating IP in your daily business:

- Almost every SME has a trade name or one or more trademarks
- Some may have invented or improved a product or a service
- Or some SMEs are perhaps using the IP of others

→ IP may assist you in almost every aspect of your business development and competitive strategy:

→ from product development to product design,

→ from service delivery to marketing, and

→ from raising financial resources to exporting or expanding your business abroad through licensing or franchising.

4.2 IP basics

Some of the vocabulary mentioned such as Background (Pre-existing IP that a party brings to a project); Sideground (Knowledge/IP that is relevant to a collaborative venture or open innovation, but produced outside the project by any of the partners during the projects tenure) was explained in this section. However, terms such as dissemination and exploitation were discussed later within the context of DESCA⁶ agreement model; and access rights and results were discussed under the open innovation section.

The main theme for IP is the protection and Michele presented this by introducing the most common types of IP protections

- Copyrights, which defend authored works. These include poems, books, music, movies, paintings, photography, and software.

⁶ <http://www.desca-agreement.eu/>

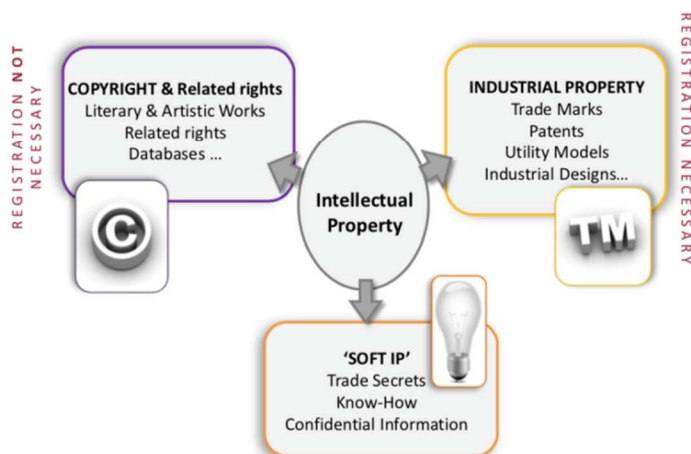
D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

- Trademarks, which protect symbols, phrases, words, or designs that identify or distinguish the source of goods from competitors. Similarly, service marks identify services.
- Trade secrets are valuable pieces of information that are not publicly known but provide a business with its competitive edge, like the secret formula for Coca-Cola.
- Patents protect inventions, business processes, or innovations that are new, unique, and nonobvious, from smartphone designs to business processes to unique lab-created plant species.

A **utility model** (a statutory exclusive right granted for a limited period of time (the so-called "term") in exchange for an inventor providing sufficient teaching of his or her invention to permit a person of ordinary skill in the relevant art to perform the invention) was presented within the trade mark domain for industrial property Intellectual property.



Intellectual Property Rights



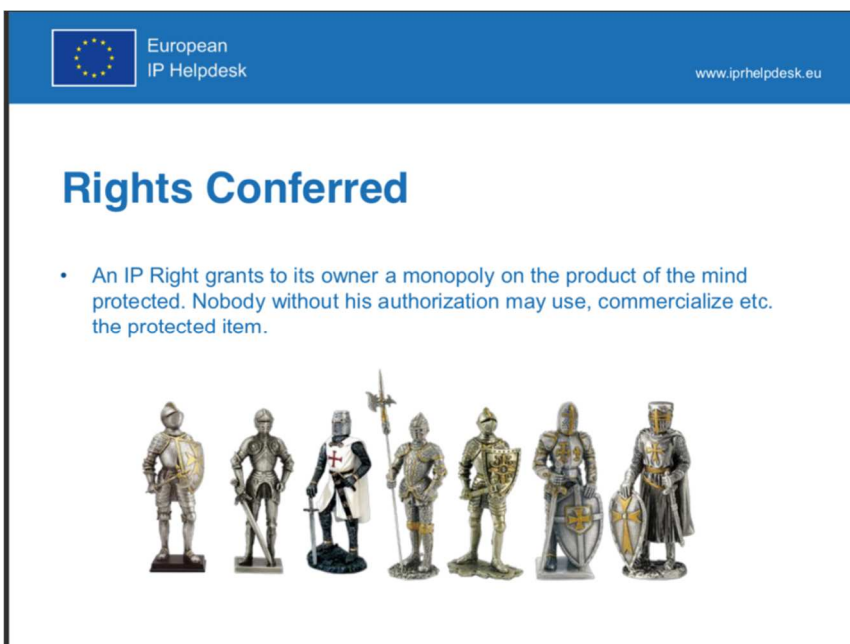
Michele also discussed the Duration of the Protection: Intellectual Property rights grant a monopoly on the intellect creation for a limited amount of time depending on the type of right that is protected.

- Copyrights (a collection of rights that automatically vest to someone who creates an original work of authorship – like a literary work, song, movie or software) is 70 years after the death of the author;
- Patents (exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

problem. To get a **patent**, technical information about the invention must be disclosed to the public in a **patent** application) is 20 years after the application;

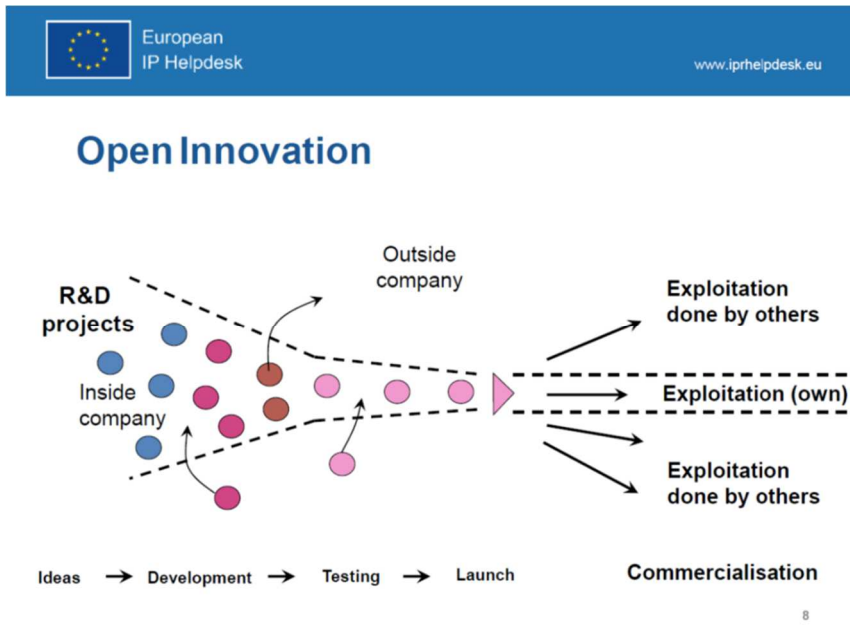
- Industrial designs (an intellectual property right that protects the visual design of objects that are not purely utilitarian. An industrial design consists of the creation of a shape, configuration or composition of pattern or color, or combination of pattern and color in three-dimensional form containing aesthetic value. An industrial design can be a two- or three-dimensional pattern used to produce a product, industrial commodity or handicraft) is 25 five years after the registration;
- Trademarks (a type of intellectual property consisting of a recognizable sign, design, or expression which identifies products or services of a particular source from those of others, although **trademarks** used to identify services are usually called service marks) is indefinitely as long as renewal fees are payed.



The screenshot shows the European IP Helpdesk website. The header includes the European Union flag, the text 'European IP Helpdesk', and the URL 'www.iprhelpdesk.eu'. The main content area is titled 'Rights Conferred' and contains a bullet point: 'An IP Right grants to its owner a monopoly on the product of the mind protected. Nobody without his authorization may use, commercialize etc. the protected item.' Below the text is an image of seven different knight figurines, each with unique armor and weapons, illustrating the concept of intellectual property as a 'product of the mind'.

A key point that Michele made was that having a patent does not mean you have access to the market you are only preventing others from using it.

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters



The following slide identified that closed innovation is research carried out by the company themselves whereas open innovation can be R&D conducted by SMEs but the exploitation is carried out by others with interest to what has been developed for example if you created a projection **keyboard** “VKEY” to improve the laptop you may have been given a license for a limited amount of time (licensing agreements); however this may also involve rights and restrictions because it is a use of technology and there may also be an issue with sublicensing. Also you cannot sell the keyboard as part of laptop because you do not have rights for the laptop. Close can be used for improvements with access granted to technology and this may also require rights to the content of work is to be covered.



European IP Helpdesk

PRO INNO EUROPE

www.iprhelpdesk.eu

Licensing agreements

- The parties (licensor and licensee)
- Purpose
- Definitions and subject matter
- Rights granted and restrictions
- Improvements
- Confidentiality
- Royalties, reports and audits
- Representations and warranties
- Infringement
- Term and termination

Exclusivity

D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

In determining licensing agreements, the terms exclusive (no other entity except the licensee can use it) or non-exclusive (grant the rights to use the IP) were discussed. Confidentiality was described as protection from reverse engineering to understand the product and how it is working. Which can also involve NDA being issued, whereas royalties generally determine a price for access to information. When describing representations and warranties Michele used a house as a synergy for example; if tenants have a problem with the roof then this is the landlord responsibility to amend and this is the same with technology, if you lease it then responsibility can return to licensor if there are infringements.

As a follow up to the last statement the slide below highlights that having a patent does not provide freedom to operate as a passive right can expose you to potential infringement risks.



4.3 IP as a business asset

In further acknowledgement to solving Europe SMEs problem (European SMEs Problems: 2017/2018 report listed in the following order the main problems; i) finding customers; ii) availability of skilled staff or experienced managers; iii) competition; iv) regulation; v) cost of production of labour; vi) access to finance, Michele listed the advantages below:

1. IP has no limit on its value
2. IP can be leveraged in many different ways
3. IP portfolio reduces operational risks
4. Companies that protect IP seem more trustworthy partners



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

5. IP rights boost your marketing and sales

In reference to patents he noted that SME can:

- profit from licensing agreements
- have an asset on the company accounts
- impress investors & share-holders
- signpost to others in the market
- use patent information to
 - solve R&D problems;
 - know your competitors' plans
 - find new suppliers & partners

In essence he states “patents can be part of a broader strategy to make money”.

4.4 Support services & useful tools

Michele marked Espacenet⁷ – patent search as an excellent tool to identify the market such as competitors or cross licensing; in fact it is an essential tool for gathering information. Using trade mark searches also narrow the search for products. Espacenet will also provide new potential customers whereas the EPO will assist SMEs in finding skilled personnel from their database.

The next slide provided the list of support services:

1. NCP network
2. European IP Helpdesk Ambassadors and EEN
3. EPO Academy
4. EUIPO learning portal
5. WIPO Academy
6. Innovacess

4.5 Questions session

Michele advices:

In order to protect yourself when approaching companies, the most efficient means is to sign NDA, there can be a strategy in place however, it is usually case by case basis. Trademarks are generally

⁷ <https://worldwide.espacenet.com/>



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters

used when dealing with consumers whereas patents are used for technology. Furthermore, with NDA it can prevent the investor from walking away with your idea.

A License is not a transfer as you keep being the owner, however you can limit the amount of time on the IPR in question and again this is similar to the house synergy where you rent the house but the owner still owns it.

DESCA:

- The most important section is n°8 the joint ownership which includes exclusive exploitation.
- Confidentiality is section 10 where the dissemination activities are explained i.e. if you wish to disseminate aspects of the project you must contact the partners and give them 30 days to reply;
- Section 4.2 and 4.3 identifies the responsible parties, Michele acknowledges here that 95% of projects go without a problem but the legal office of some entities is keen on changing responsibility and this refers to contractual and non-contractual issues targeting breach of confidentiality as liability is carried out at the source;
- Universities have a tendency to focus on these issues as they generally like to be the only user of the service, for example; exclusivity in order to have a monopoly on the invention;
- For patents Michele also noted you must identify the territory for instance; Spain is covered in Europe but outside you must focus on the geographical location;
- Patents should only last as long as necessary for instance a 2-year patent is useless for a 5-year license;
- License out refers to licensing outside the life cycle of the consortium;
- For H2020 license - SMEs are to be given fair and reasonable condition or Royalty-free (material subject to copyright or other intellectual property rights may be used without the need to pay royalties or license fees for each use, per each copy or volume sold or some time period of use or sales).



D3.2 CYBER SECURE LIGHT Joint coaching methodology to strengthen business support services of project clusters



European
IP Helpdesk

www.iprhelphdesk.eu

Intellectual Property for Business

- How can Intellectual Property Enhance the [Market Value](#) of Your SME?
- How do you Turn [Inventions](#) Into Profit-making Assets of Your SME?
- Why is Intellectual Property Crucial for [Marketing](#) the Products and Services of Your SME?
- Can Your SME use Intellectual Property Assets for [Financing](#)?
- How can Intellectual Property Enhance the [Export](#) Opportunities of Your SME?
- How can Your SME [Acquire and Maintain Intellectual Property Protection](#)?
- [Protecting the Intellectual Property Rights of Your SME Abroad](#)
- Why are [Trademarks](#) Relevant to the Success of Your SME?
- Protecting the [Trade Secrets](#) of Your SME
- How can Your SME Benefit From [Copyright Protection](#)?
- How can [collective marks, certification marks and geographical indications](#) be useful for SMEs?
- Protecting Innovations by [Utility Models](#)
- Managing the [Intellectual Property Assets](#) of Your SME
- Using [Patent Information](#) for the Benefit of Your SME
- [Licensing of Intellectual Property](#): a Vital Component of the Business Strategy of Your SME
- What Should Your SME do to Resolve [Disputes Related to Intellectual Property](#)?
- **IP and Artificial Intelligence**: <https://attendee.gotowebinar.com/recording/2255514367146395404>

©https://www.wipo.int/sme/en/ip_business/



European
IP Helpdesk

www.iprhelphdesk.eu

You are a SME looking for information on IP?

- [Intellectual property and business plans](#) (Fact Sheet)
- [Intellectual property management in open innovation](#) (Fact Sheet)
- [IPR management in software development](#) (Fact Sheet)
- [IP Audit: Uncovering the potential of your business](#) (Fact Sheet)
- [IP due diligence: assessing value and risks of intangibles](#) (Fact Sheet)
- [Auto-Plas International: IP and business growth](#) (Case Study)
- [A double-line IP strategy for start-ups](#) (Case Study)
- [Managing IP information for international business opportunity](#) (Case Study)
- [The importance of an IP management structure in a research project](#) (Case Study)
- [Espacenet](#)
- [TMview](#)
- [Designview](#)