

Project No.: 147426

Project acronym: TANOCOMP

Project title:

Training on the nANOTEchnology aspects of plastic COMPosites with enhanced properties for use in high-strength applications

Work Package 7: Exploitation

Result 25

DRAFT IPR AGREEMENT

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1 Introduction

The present document constitutes Result 25 in the framework of the TANOCOMP project entitled “Training on the nANOTEchnology aspects of plastic COMPosites with enhanced properties for use in high-strength applications” (Project Acronym: TANOCOMP; Contract No.: 147426).

This document summarizes the main activities performed within the framework of WP7 “Exploitation”, and more specifically those performed under the umbrella of Task 7.3 “Drafting of IPR Agreement”. As this activity will be ongoing even beyond the project, this result provides a framework of reference to all partners and is aimed at delivering guidance on relevant IPR issues to be observed when entering into more detailed agreements.

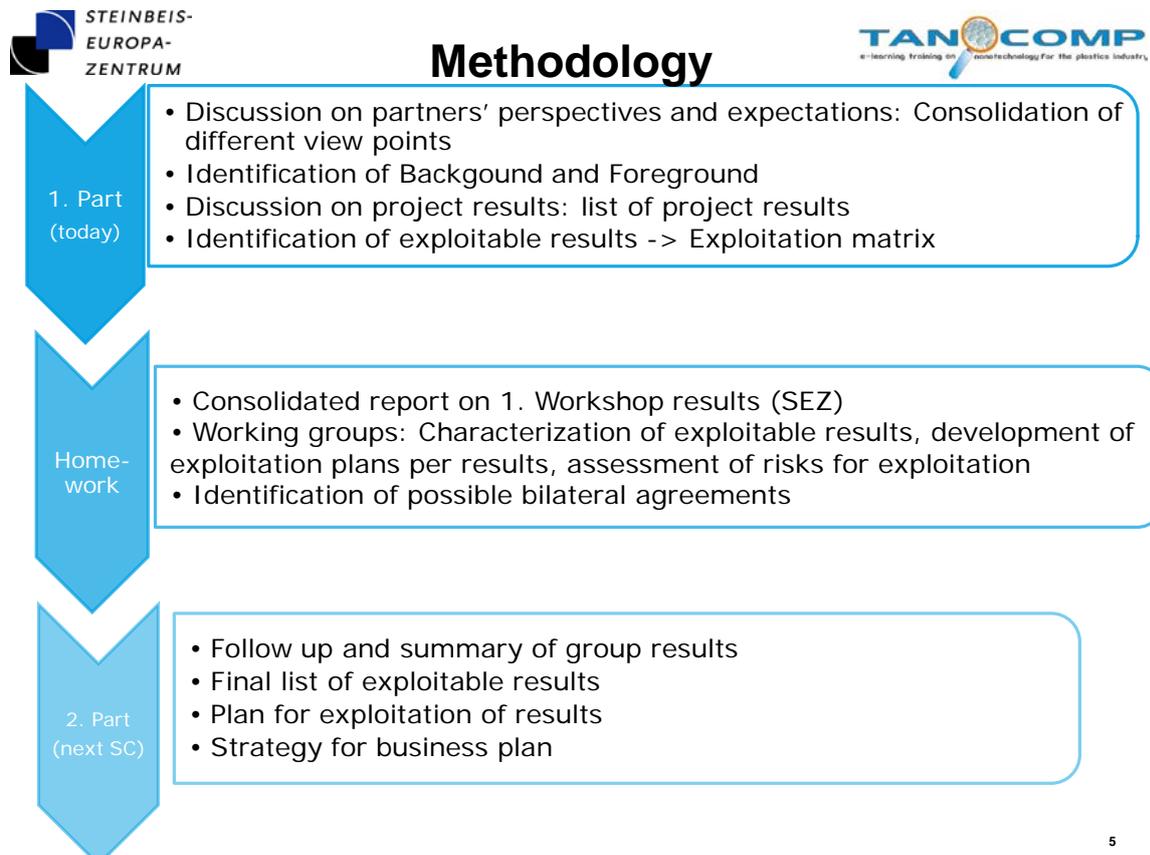
Thus, the present document should serve as basis to all project partners to easily find a common path to fully exploit the potential of project results developed along TANOCOMP.

2 Methodology

In order to set-up a final IPR agreement that clearly defines the IP rights and claims of each partner for the project TANOCOMP, several previous steps were initiated by the project partners in order to achieve a final result that accounts for all the exploitation ideas of everyone involved.

The project's coordinator PO-SEZ had already vast experience in identifying the exploitation claims within international projects and suggested therefore the organization of two IPR workshops in order to jointly discuss the main results of the project and possible paths towards the exploitation and access rights of project results.

IPR Workshop 1:



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The first IPR workshop was held in M23 (August 2013) online via a web conference. All partners except for P3-MM attended this workshop. The workshop was used to clarify the terminology

worked with, such as the definition of “background knowledge”, “foreground knowledge” and “project results”. Furthermore, jointly with the partners some background knowledge was defined as well as some main project results (= foreground):



Some definitions



- **Background:**

Information held by beneficiaries, owned or controlled by project partners and brought to the project; may come from existing knowledge as well as copyright or other IPR and may be in the same or related fields of the work carried out in the project.

Background information has to be relevant to the project activity/result at stake, is thus needed to carry out the project and is expected to be used in the foreground and somehow embedded in the related result.

- **Foreground:**

Results, including information, being protectable or not, which are generated under the project. Belongs to the beneficiary (ies) generating it. Can be jointly generated (joint ownership) and can be transferred (third parties)

- **Exploitation (Use):**

Direct or indirect utilisation of foreground in further research activities (other than those covered by the project), or for developing, creating and marketing a product, process or service.

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In several interactive exercises, the partners were asked to provide their own project input, such as their background and possible foreground:

What is your background? (exercise 2)

SEZ	GT	aiTIIP	MM
<ul style="list-style-type: none"> - Know how on technology transfer - Know how on pedagogical and didactic methodologies - Expertise on IPR issues 	<ul style="list-style-type: none"> - Know how on CNTs properties, functionalisation and production and handling methods - Know how related to set up of websites & online platforms 	<ul style="list-style-type: none"> - Know how on plastic processing technologies - Know how on plastic composites with CNTs (and other nanotechnologies), related properties and functionalisation - Previous knowledge in e-learning platform set-up 	<ul style="list-style-type: none"> - Know how on technology transfer - Know how on pedagogical and didactic methodologies

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What is your foreground? (exercise 3)

=> Project results: knowledge, reports, prototype, models, databases etc.

SEZ	GT	aiTIIP	MM
<ul style="list-style-type: none"> - Definition of e-learning methodology and pedagogical framework - Market analysis on German plastics and nanotechnology sector 	<ul style="list-style-type: none"> - Development of module content (Unit 2 and Unit 4) - Project website development - Conversion of contents with captive - Market analysis on Greek plastics and nanotechnology sector 	<ul style="list-style-type: none"> - Development of module content (Unit 1 and Unit 3) - E-Learning platform development - Market analysis on Spanish plastics and nanotechnology sector 	<ul style="list-style-type: none"> - Market analysis on Cypriot plastics and nanotechnology sector - Analysis of target groups' needs

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Moreover, the participants were asked to identify such results out of their foreground, which can be exploitable, meaning they can be used in further research activities, licensed, sold or further developed to be used as a product, process or service. In this workshop, the following results were defined as exploitable:

Result	Exploitable result	Comments (stand alone, part of other result...)
E-Learning units' content	1) E-Learning units' content – as training modules after project conclusion	Trainings modules can be exploited as a “complete package” or information of specific modules can be “detached” from TANOCOMP training and be exploited as a “stand alone”
E-Learning platform	1) E-learning platform itself, which can only be exploited in conjunction with the units' contents	<ul style="list-style-type: none"> 2) Revise contents in a yearly basis in order to keep them updated 3) Keep platform running and available (at least 2 years after project conclusion) 4) Approach stakeholders (existing and new ones) to remind/make aware of the tool 5) Further promoted through project's and partners' website
TANOCOMP website	TANOCOMP website	<ul style="list-style-type: none"> 1) Keep platform running and available (at least 2 years after project conclusion) 2) Website as “access point” to e-learning training

At the IPR workshop's end, all TANOCOMP partners were asked to identify further background and foreground, which should serve as a basis for discussion for the second IPR workshop.

IPR Workshop 2:

The second TANOCOMP IPR workshop had the aim to identify out of the collected foreground the exploitable results and to evaluate to what extent each partner was involved in each of those results in terms of background and foreground involvement. Also, all partners should use this occasion to state their exploitation claims and protection mechanisms foreseen.

The workshop was held on 25th September 2013 (M24) with all partners present at the facilities of P2-AI. At first, all results that have been collected during the first workshop and those that had been provided after the first workshop by the partners were proved by the consortium regarding their correctness. Secondly, the partners were asked to mark at each result if they had been involved with background knowledge or the development of foreground:

Project results/Foreground identification (exercise 1)

=> Project results: Units contents, Tanocomp portal, etc

Units content result 1	
Background P1 P2 P3 P4	Foreground P1 P2 P3 P4
E-learning methodology result 6	
Background P1 P2 P3 P4	Foreground P1 P2 P3 P4

Exercise I

- Validate Project Results' name
- Add or remove some if necessary
- Complete Background and Foreground information



After the completion of this exercise, the following results had been identified; the color green marks the involvement of each partner in background and foreground:

(1 = SEZ, 2= GT, 3 = AI, 4 = MM)

1. Units' content (all units)	
Background	Foreground
<u>1234</u>	<u>1234</u>

2. Technical set-up of e-Learning Modules	
Background	Foreground
<u>1234</u>	<u>1234</u>

3. (Open to other training offer) E-Learning Platform (Moodle)	
Background	Foreground
<u>1234</u>	<u>1234</u>

4. TANOCOMP final version of the e-Learning toolkit (platform)	
Background	Foreground
<u>1234</u>	<u>1234</u>

5. (Website) TANOCOMP Portal	
Background	Foreground
<u>1234</u>	<u>1234</u>

6. E-Learning methodology	
Background	Foreground
1234	1234

7. Accreditation Tool	
Background	Foreground
1234	1234

8. Market Analysis (plastics and CNTs)	
Background	Foreground
1234	1234

9. Structure of the training	
Background	Foreground
1234	1234

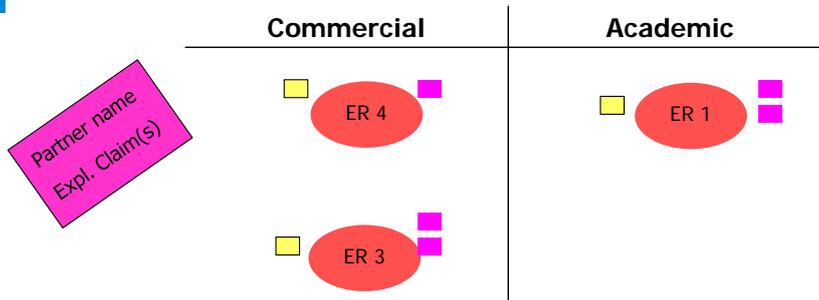
10. Technological Watch of CNT nanocomposites solutions	
Background	Foreground
1234	1234

11. Technical and market evaluations	
Background	Foreground
1234	1234

12. Exploitation plan	
Background	Foreground
1234	1234

Considering the list of results, all partners were asked to decide which results can actually be exploitable and how (e.g. it can be commercialized as a stand-alone product). Exploitable results can either be commercially, academically or in both ways be exploited. Once those were identified, the partners were asked to establish links to non-exploitable results and express their interests in exploitation of those (exploitation claims). Afterwards, all partners were requested to express the protection mechanisms they were planning to use.

Exploitation claims (exercise 3)



- **M**: Manufacturing and selling them (direct commercialisation)
- **U**: Using them internally to make something else for sale (indirect commercialisation). U applies also to universities and research organisations willing to use the result in new research projects.
- **L**: Licencing them to 3rd parties
- **O**: Providing services such as consultancy, trainings, etc...

3 Exploitation Claims – Overview

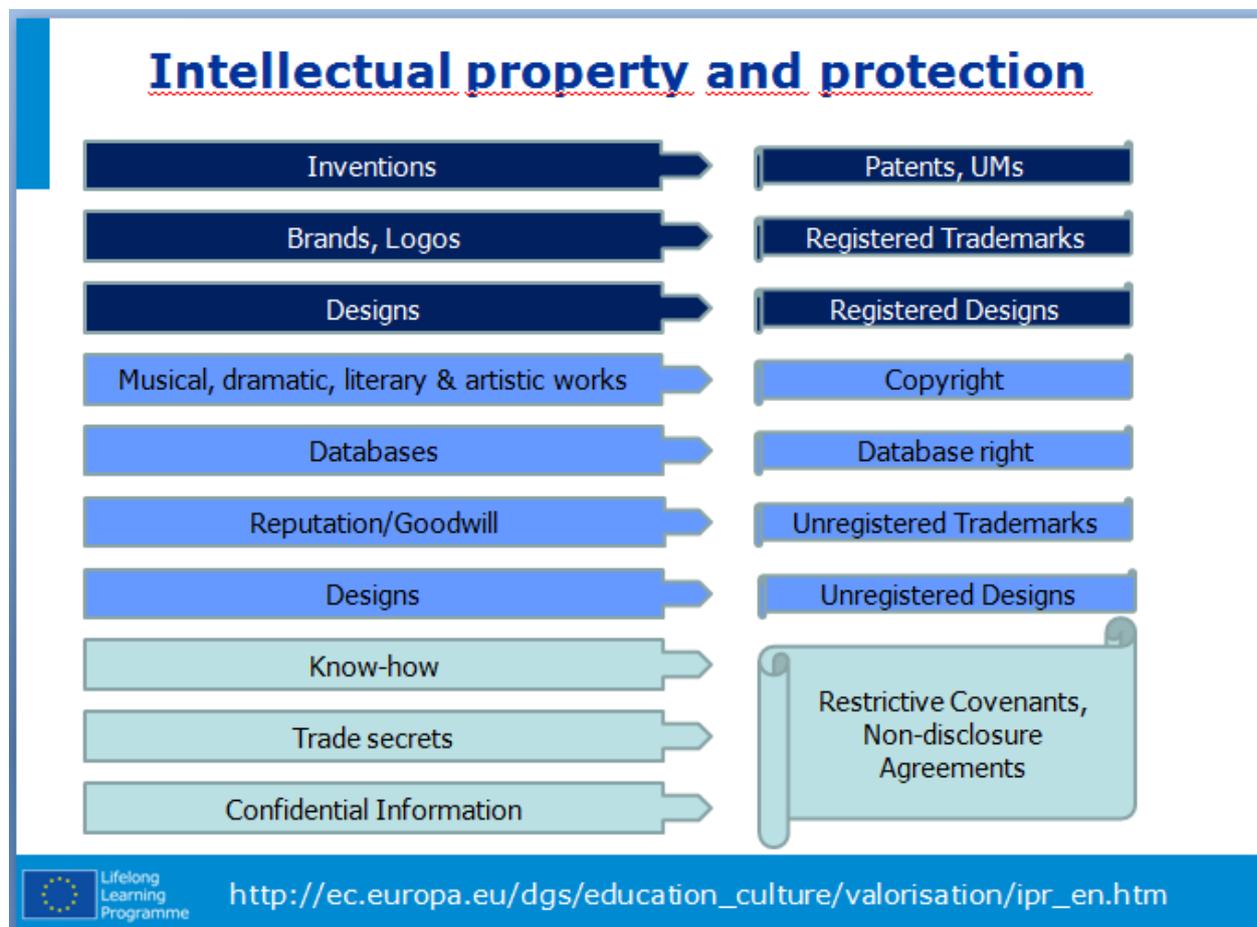
3.1 Exploitation Claims (M, U, L, O)

The intention of the partners to exploit the results was expressed considering the following four options:

- Manufacturing and selling them (**M**)
- Using them internally to make something else for sale (**U**). U applies also to universities and research centres willing to use the result in new research projects.
- Licencing them to 3rd parties (**L**);
- Providing services such as consultancy, training, etc...(O).

3.2 Protection Mechanisms

Typical protection mechanisms for IP can be listed as follows. On the left side of the picture, different types of IP are listed and in the matching colors on the right side, their most common protection mechanisms are to be seen:



IP rights can be defined in consortium agreements, confidentiality agreements among concerned partners, patents, designs, trademarks, copyrights and others. Furthermore, security practices in the project can be enforced to guarantee caution in giving away information in publication or patents (e.g. security protocols for online depository...). It is also possible to consider employee contracts or governing laws regarding individual IP rights definitions.

3.3 Access Rights

Access rights define the partner’s access to a result, no matter if the person is claiming exploitation or not. Hence, access rights can also be given to parties who are not planning to actively exploit a result, but who have a specific interest in getting access to a particular project result granted.

A partner involved in the generation of a result either by providing “Background” and/or “Foreground” information has an “access right” granted by default.

4 Exploitation claims and Protection Mechanisms – per Result

This section lists the exploitation claims and protection mechanisms per identified exploitable result for all partners. “Result owners” are those partners who have either or both put background into a result or have developed foreground in a result. Therefore, they are claimed as the single or joint “owners” of an exploitable result.

“Result users” are the partners who claim to use a result for their own exploitation. These partners can be “result owners” at the same time.

4.1 No1: Unit’s content (all units)

Commercial and academic exploitation

Background

P1-GT	<ol style="list-style-type: none"> 1. CNTs production processes 2. CNTs functionalization protocols 3. CNTs dispersion techniques in thermoplastics and thermoset 4. Structural and physical characterization of CNTs 5. Toxicity studies on CNTs 6. Safety measures during handling and processing of CNTs 7. Property enhancement in CNTs-based polymer composites
P2-AI	<ol style="list-style-type: none"> 1. Types of nanoparticles. 2. Benefits in products (characteristics which can be enhanced). 3. CNT thermoplastic and thermoset composites manufacturing processes: compounding, extrusion, injection. 4. Advanced plastic product development (from concept to serial production). 5. Plastic injection history and state of the art. 6. CNT additives knowledge.

	<ol style="list-style-type: none"> 7. Potential plastic matrices to add CNT and other nano-additives. 8. Safety issues related to nano-additives uses. 9. Rheological behavior of plastic materials in processing.
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Foreground

P0-SEZ	<ol style="list-style-type: none"> 1. Didactic guidelines 2. Methodological aspects 3. Proof of content coherence 4. European legal framework 5. Definition of the learning results and learning outcomes
P1-GT	<ol style="list-style-type: none"> 1. Regulations on CNTs toxicity 2. European legal framework on CNTs processing
P2-AI	<ol style="list-style-type: none"> 1. Background updated. 2. Carbon nanotubes toxicity. 3. European Legal Framework. 4. Health with CNTs.
P3-MM	<ol style="list-style-type: none"> 1. European Legal Framework

Exploitation claims

P0-SEZ	U, O	<p>U: internal use, e.g. for internal training</p> <p>O: Provision of training services</p>
P1-GT	M, U, O	<p>M: Glonatech claims to commercialize the units' content as a standalone package with files.</p> <p>U: Use internally of the units' content for attracting customers or partners in future research projects related to nanotechnology</p> <p>O: Glonatech will offer consultancy services and training of stakeholders</p>
P2-AI	M, U, O	<p>M: AITIIP claims to commercialize the units' content as a standalone pack with files.</p> <p>U: Use internally of the units' content to transmit knowledge (for example to SMEs and other stakeholders) to another consortiums in future research projects (nanotechnology, reinforced plastics, plastic transforming processes, etc.)</p> <p>O: on the basis of units' content, AITIIP claims to offer consultancy services, training and theoretical formation.</p>
P3-MM	M, U, O	<p>M. Marketmentor to commercialize the units' content as a standalone pack with files.</p> <p>U. Marketmentor claims the use in other research projects with other consortiums as well in collaboration with universities and R&D</p> <p>O. Marketmentor claims to offer consultancy services, training and theoretical formation.</p>

Protection mechanism

P0-SEZ	copyright
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P1-GT	copyright
P2-AI	copyright
P3-MM	copyright

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: GT, AI	Exploitation Claims: GT, AI, MM, SEZ	GT, AI, MM, SEZ
Foreground Partners: SEZ, GT, AI, MM		

4.2 No3: e-Learning platform (Moodle) – open to other training offer Commercial and academic exploitation

Background

P2-AI	<ol style="list-style-type: none"> 1. Moodle and MySQL data base knowledge. 2. Previous e-learning platform running. 3. 5 training courses related to plastic concepts and its processes. 4. Previous development of online applications based on Moodle. 5. Showcasing of online platforms.
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Foreground

P2-AI	<ol style="list-style-type: none"> 1. Background updated. 2. Implementation of new functionalities: forums, user's private area, management of end user problems, etc. 3. Software quality, more friendly aspect, stability, etc. 4. E-learning platforms with more than one languages.
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Exploitation claims

P2-AI	M, U, L, O	<p>M: Manufacturing and selling new e-Learning platforms with updated contents (from new research projects, research papers, etc.) about different disciplines such as: robotics, materials, processes, etc.</p> <p>U: Using the acquired knowledge with TANOCOMP for implementing new potential e-Learning platforms for new projects. Furthermore, AITIIP will use internally the structure of the TANOCOMP platform adapting it for developing an internal platform with contents (knowledge transferring areas, products, customers, etc.)</p> <p>L: licensing the structure of platform to companies for developing new software solutions.</p>
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		O: exploitation the base structure of the platform. On the other hand, on the basis of the learned lessons with the TANOCOMP e-Learning platform, AITIIP will offer consultancy services related to the use of this kind of platforms, methodology for the incorporation of contents, how to achieve quality, functionalities or friendless in platforms.
P3-MM	M, U, L, O	M: Manufacturing and selling new e-Learning platforms with updated contents (from new research projects) about different disciplines. U: Using the acquired knowledge with TANOCOMP for implementing new potential e-Learning platforms for new projects. L: licensing the structure of platform to companies for developing new software solutions. O: Marketmento will offer consultancy services related to the use of this kind of platforms, methodology for the incorporation of contents, how to achieve quality, functionalities or friendless in platforms.

Protection mechanism

P2-AI	Secrecy agreement
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IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: AI	Exploitation Claims:	AI
Foreground Partners: AI	AI, MM	Claims for Access Rights: MM, SEZ GT?

4.3 No4: TANOCOMP final version of e-Learning toolkit

Commercial and academic exploitation

Background

P1-GT	1. Knowledge of Captivate
P2-AI	1. Software engineering: integration, requirements, customization, etc. 2. Typical requirements for an useful e-Learning platform. 3. Data base integration and online platforms designing.

Foreground

P0-SEZ	1. Input in design and structure 2. Provision of guidelines for platform functionality
P1-GT	1. Captivate adaption for creating an interactive e-learning platform

P2-AI	<ol style="list-style-type: none"> 1. Conceptualization and development of e-Learning platforms (content structure, quality, assessment, etc.) 2. Generation of updated concepts for incorporating to a new platform. 3. Combination among theoretical and practical training and supported by a new e-Learning platform. 4. New applications of the nanotechnology.
P3-MM	<ol style="list-style-type: none"> 1. Conceptualization and development of e-Learning platforms (content structure, quality, assessment, etc.) 2. Generation of updated concepts for incorporating to a new platform. 3. Combination among theoretical and practical training and supported by a new e-Learning platform. 4. New applications of the nanotechnology.

Exploitation claims

P0-SEZ	U, O	<p>U: internal use for further e-Learning related projects</p> <p>O: consulting services for other e-Learning projects</p>
P1-GT	M, U, L, O	<p>M: Collaboration with AITIIP in developing interactive new e-Learning platforms on different disciplines</p> <p>U: Using the acquired knowledge with TANOCOMP for implementing new potential e-Learning platforms for new projects and make presentations to potential customers</p> <p>L: Licensing the methodology used for adopting Captivate in e-learning and training platforms.</p> <p>O: Glonatech will offer consultancy services related to the use of this type of e-learning platform, methodology for the incorporation of contents, how to achieve quality, functionalities or friendless in platforms.</p>
P2-AI	M, U, L, O	<p>M: AITIIP claims the commercialization of the toolkit to its stakeholders via CD or via web with personal access. These stakeholders are: plastic enterprises, research centres, universities, plastic company associations, clusters, universities, etc.</p> <p>U: Internal use of the platform to support future research projects based on nanotechnology, nanocomposites, etc. The toolkit could be customized for new functionalities, concepts, etc.</p> <p>L: licensing the commercialization of the platform to 3rd parties for a combined exploitation. This licensing would expand the use of the new platform through boosting the dissemination activities, increasing the stakeholders, etc.</p> <p>O: thanks to the new platform, AITIIP claims to offer potential consultancy services (access to platform) to entities related to nanotechnology and plastics by workshops for explaining injection and extrusion moulding processes and achieving the necessary theoretical support by new e-Learning platform.</p>
P3-MM	M, U, L, O	<p>M: Marketmentor claims the commercialization of the toolkit to its stakeholders via CD or via web with personal access. These stakeholders are: plastic enterprises, research centres, universities, plastic company associations, clusters, universities, etc.</p>

		<p>U: Internal use of the platform to support future research projects based on nanotechnology, nanocomposites, etc. The toolkit could be customized for new functionalities, concepts, etc.</p> <p>L: licensing the commercialization of the platform to 3rd parties for a combined exploitation. This licensing would expand the use of the new platform through boosting the dissemination activities, increasing the stakeholders, etc.</p> <p>O: thanks to the new platform, Marketmentor claims to offer potential consultancy services (access to platform) to entities related to nanotechnology and plastics by workshops for explaining injection and extrusion moulding processes and achieving the necessary theoretical support by new e-Learning platform.</p>
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Protection mechanism

P0-SEZ	copyright
P1-GT	copyright
P2-AI	copyright
P3-MM	copyright

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: GT, AI	Exploitation Claims:	SEZ, GT, AI, MM
Foreground Partners: SEZ, GT, AI, MM	SEZ, GT, AI, MM	

4.4 No5: TANOCOMP Portal (website)

Commercial exploitation

Background

P1-GT	<ol style="list-style-type: none"> 1. Creation of numerous websites for research projects 2. Knowledge of Word Press 3. Design of websites 4. Technology-based content for websites
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Foreground

P0-SEZ	<ol style="list-style-type: none"> 1. Input for articles 2. Provision of downloadable documents
P1-GT	<ol style="list-style-type: none"> 1. Design of TANOCOMP website 2. Maintenance of TANOCOMP website 3. Word press features for TANOCOMP website

	4. Hosting of the e-learning platform
P2-AI	<ol style="list-style-type: none"> 1. Planning for developing websites: timing, data bases, etc. 2. Innovative websites designing. 3. Easy navigation, friendly aspect, etc. 4. Definition of parts of websites (end users access, forums – web 2.0.-, private areas, surveys of using, website structure, etc.)
P3-MM	<ol style="list-style-type: none"> 1. Planning for developing websites: timing, databases, etc. 2. Innovative websites designing. 3. Easy navigation, friendly aspect, etc. 4. Definition of parts of websites (end users access, forums – web 2.0.-, private areas, surveys of using, website structure, etc.)

Exploitation claims

P0-SEZ	U	Internal use in consulting services, e.g. presenting the website as an example of a website for e-Learning projects
P1-GT	U, O	<p>U: Glonatech claims to use internally the source code of website (structure) for developing new websites for new research projects taking into account the structure of the TANOCOMP website</p> <p>O: Consultancy services on developing website for research and training projects</p>
P2-AI	U	AITIIP claims to use internally the source code of website (structure) for developing new websites for new research projects (for example LEONARDO, H2020, etc.) taking into account the ideal functionalities of the TANOCOMP website (objectives of the project, consortium, stakeholder's account, news & events, etc.).
P3-MM	U	Marketmentoro claims to use internally the source code of website (structure) for developing new websites for new research projects (for example LEONARDO, H2020, etc.) taking into account the ideal functionalities of the TANOCOMP website (objectives of the project, consortium, stakeholder's account, news & events, etc.).

Protection mechanism

P0-SEZ	copyright
P1-GT	copyright
P2-AI	copyright
P3-MM	copyright

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: GT	Exploitation Claims: SEZ, GT, AI, MM	SEZ, GT, AI, MM
Foreground Partners: SEZ, GT, AI, MM		

4.5 No6: e-Learning Methodology

Academic exploitation

Background

P0-SEZ	1. Know-how on transforming scientific content into didactic content
P1-GT	1. Adjustment of technical knowledge to an e-Learning methodology and training tool. 2. Assessment of the acquired knowledge of an end user: structure of methodology, timing of tests, etc. 3. Structuring of questions for validating the e-learning methodology for users
P2-AI	1. Adjustment of theoretical contents to an e-Learning methodology. 2. Assessment of the acquired knowledge of an end user: structure of methodology, time of tests, etc. 3. Types of questions (true-false, correct answer, numbering, etc.)
P3-MM	1. Assessment of the acquired knowledge of an end user: structure of methodology, time of tests, etc. 2. Types of questions (true-false, correct answer, numbering, etc.)

Foreground

P0-SEZ	1. Development of TANOCOMP e-Learning methodology for all four learning units
P1-GT	1. Contribution to the developed e-Learning methodologies 2. Strengthening of skills through exercises.
P2-AI	1. Background updated. 2. E-Learning methodologies (via e-Learning platform, workshops, etc.) for achieving an efficient way to learn. 3. To strengthen skills through theoretical contents and exercises.
P3-MM	1. Background updated. 2. E-Learning methodologies (via e-Learning platform, workshops, etc.) for achieving an efficient way to learn. 3. To strengthen skills through theoretical contents and exercises.

Exploitation claims

P0-SEZ	U, O	U: Internal development of didactic content for new e-Learning projects O: external consultation on how to set up didactic content for e-Learning projects
P1-GT	U, O	U: The e-Learning methodology will be internally used to share knowledge among the company's employees to enhance competences and skills. The developed e-Learning methodology can be used in future research projects. O: Glonatech claims to offer consultancy and training services with respect to developing e-learning methodologies.
P2-AI	U, O	U: The e-Learning methodology will be internally used to share

		<p>knowledge among the workers, collecting the knowledge available in the entity for gaining in competences and skills. By this, it could be a powerful tool to generate new ideas of projects. At this respect, the e-Learning methodology (structure, user's progress, etc.) will be used in future research projects.</p> <p>O: AITIIP claims to exploit courses or consultancy services to explain how to transmit a solid formation with novel tools like an online platform. In addition, AITIIP could explain its experience with TANOCOMP project as an example of this kind of formation.</p>
P3-MM	U, O	<p>U: The e-Learning methodology will be internally used to share knowledge among the workers, collecting the knowledge available in the entity for gaining in competences and skills. By this, it could be a powerful tool to generate new ideas of projects. At this respect, the e-Learning methodology (structure, user's progress, etc.) will be used in future research projects.</p> <p>O: Marketmento claims to exploit courses or consultancy services to explain how to transmit a solid formation with novel tools like an online platform. In addition, AITIIP could explain its experience with TANOCOMP project as an example of this kind of formation.</p>

Protection mechanism

P0-SEZ	confidentiality agreement
P1-GT	confidentiality agreement
P2-AI	confidentiality agreement
P3-MM	confidentiality agreement

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: SEZ, GT, AI, MM	Exploitation Claims: SEZ, GT, AI, MM	SEZ, GT, AI, MM
Foreground Partners: SEZ, GT, AI, MM		

4.6 No7: Accreditation Tool

Academic exploitation

Background

P2-AI	<ol style="list-style-type: none"> 1. Designing of accreditation tools. 2. Procedures to achieve the accreditation tools. 3. Data base management to know accredited end users (lists, progress,
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	passed lessons, etc.)
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Foreground

P2-AI	Background updated.
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Exploitation claims

P1-GT	O	O: Glonatech will possibly use the developed accreditation tool in future training activities
P2-AI	U, O	U: AITIIP will use the accreditation tool for future research projects. On the basis of the structure of the tool, AITIIP could use it for developing new models of accreditation tools to include in possible training courses to offer. O: AITIIP claims to use models of this kind of tools for the accreditation of those end users who pass the tests of possible new training courses.
P3-MM	U	U: Marketmentor will use the accreditation tool for future research projects. On the basis of the structure of the tool, AITIIP could use it for developing new models of accreditation tools to include in possible training courses to offer.

Protection mechanism

P1-GT	secrecy agreement
P2-AI	secrecy agreement
P3-MM	secrecy agreement

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: AI	Exploitation Claims: GT, AI, MM	AI Claims for Access Rights: SEZ, GT, MM
Foreground Partners: AI		

4.7 No8: Market Analysis

Commercial exploitation

Background

P0-SEZ	1. Methodology on set-up of market analysis
P1-GT	1. Nanotechnology market 2. CNTs market

	<ol style="list-style-type: none"> 3. CNTs-composites market with focus on plastics 4. End users of nanotechnology-based products 5. Issues related to safety and health of nanoparticles
P2-AI	<ol style="list-style-type: none"> 1. Nanotechnology market. 2. Types of nanomaterials. 3. Current and future plastic matrices reinforced with carbon nanotubes. 4. Manufacturing processes (providers, plastic transformers, compounders, etc.) 5. Safety. 6. Companies which provide carbon nanotubes, plastic matrices, etc. 7. Carbon nanotubes production methods. 8. Predictions for carbon nanotubes revenues.
P3-MM	<ol style="list-style-type: none"> 1. Nanotechnology market. 2. Safety. 3. Companies which provide carbon nanotubes, plastic matrices, etc.

Foreground

P0-SEZ	<ol style="list-style-type: none"> 1. Knowledge on German plastics market 2. Knowledge on German nanotechnology market
P1-GT	<ol style="list-style-type: none"> 1. Updates on national and international CNTs and nanotechnology market in general as well as plastics nanocomposites market 2. Applications of CNTs in polymers
P2-AI	<ol style="list-style-type: none"> 1. Updated nanotechnology market: providers, forecasts, growth rates, etc. 2. Potential uses of NTC nanocomposites.
P3-MM	<ol style="list-style-type: none"> 1. Updated nanotechnology market: providers, forecasts, growth rates, etc. 2. Potential uses of NTC nanocomposites.

Exploitation claims

P0-SEZ	U, O	<p>U: methodology for other projects; market analysis on German plastics market and nanotechnology market to be distributed to SEZ clients</p> <p>O: consultancy services on market analysis and on German plastics market and nanotechnology market</p>
P1-GT	U, O	<p>U: The current market situation of nanocomposites, plastics nanomaterials and carbon nanotubes, etc. will pave the way for the manufacturing of innovative products based on CNTs-based plastics. This will be important for increasing the customer portfolio and market share of Glonatech</p> <p>O: Glonatech claims to exploit the market analysis (plastics and CNTs), by selling it to end users</p>
P2-AI	U, O	<p>U: The current market situation of nanocomposites, carbon nanotubes, etc. will be key to know (internally in AITIIP) the potential feasibility (technical, economical, market, etc.) of the manufacturing of innovative products based on plastic reinforced with carbon nanotubes. In addition, the knowledge of this market will be an important contribution to future research projects.</p> <p>O: AITIIP claims to exploit the market analysis (plastics and</p>

		CNTs), by selling it to end users who buy any of another TANOCOMP results which are going to be exploited by AITIIP.
P3-MM	U, O	U: The current market situation of nanocomposites, carbon nanotubes, etc. will be key to know (internally in Marketmento) the potential feasibility (technical, economical, market, etc.) of the manufacturing of innovative products based on plastic reinforced with carbon nanotubes. In addition, the knowledge of this market will be an important contribution to future research projects. O: Marketmento claims to exploit the market analysis (plastics and CNTs), by selling it to end users who buy any of another TANOCOMP results which are going to be exploited by Marketmento.

Protection mechanism

P0-SEZ	copyright
P1-GT	copyright
P2-AI	copyright
P3-MM	copyright

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: SEZ, GT, AI, MM	Exploitation Claims: SEZ, GT, AI, MM	SEZ, GT, AI, MM
Foreground Partners: SEZ, GT, AI, MM		

4.8 No10: Technological Watch of CNT nanocomposite solutions

Commercial and academic exploitation

Background

P1-GT	<ol style="list-style-type: none"> 1. Previous "technological watch" services to stakeholders specialized in the development of products based on nanotechnology or being willing to develop nanotechnology based materials 2. Literature review on nanotechnology applications and health and safety issues related to nanotechnology 3. Market trends in developed solutions based on CNT nanocomposites. 4. Participation in the NanoSafety Cluster
P2-AI	<ol style="list-style-type: none"> 1. Previous "technological watch" services to stakeholders specialized in the development of products based on nanotechnology. 2. Research papers to know what materials are being researched. 3. Plastic information processes. 4. Market trends in developed solutions based on CNT nanocomposites. 5. Extensive bibliography about safety.

	6. Contact with NanoSafety Cluster.
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Foreground

P1-GT	<ol style="list-style-type: none"> 1. Continuous monitoring of market trends related to CNTs in various plastics sectors (transportation, electronics, sporting goods etc.) 2. Compliance with safety regulations (national and European) in the workplace
P2-AI	<ol style="list-style-type: none"> 1. Deep knowledge in NTC nanocomposites solutions for the following sectors: <ul style="list-style-type: none"> - Materials science. - Energy. - Automotive and transport. - Aerospace. - Biomedicine (CNTs biomedical applications) - Advanced textiles. - Food. - Robotics. 2. Individual market trends to new solutions for the sectors listed above. 3. Identification of demanded enhanced properties of new CNT nanocomposites solutions.

Exploitation claims

P1-GT	M, U, O	<p>U: Glonatech will use internally the acquired knowledge on international CNTs market for enhancing sales</p> <p>O: Glonatech claims to offer consultancy services to companies in the development and optimization of new CNTs-based products.</p>
P2-AI	M, U, O	<p>M: AITIIP claims to offer "Technological Watch" services (through attached documents via mail or meetings) about the existing solutions in diverse sectors (medicine, sports, automotive packaging, etc.) made by NTC composites (updated constantly).</p> <p>U: AITIIP will use internally the acquired knowledge in current and future products made of NTC nanocomposites and the expected forecasts in the European market.</p> <p>O: AITIIP claims to offer consultancy services to companies which want to release a new product/solution (based on nanotechnology) to market.</p>

Protection mechanism

P1-GT	know-how
P2-AI	secrecy agreement

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: GT, AI	Exploitation Claims: GT, AI	GT, AI Claims for "Access Rights" SEZ
Foreground Partners: GT, AI		

4.9 No11: Technical and Market Evaluations

Commercial exploitation

Background

P1-GT	<ol style="list-style-type: none"> 1. Analysis of new solutions based on plastic matrices and CNTs 2. Processing of CNTs dispersion based on CNTS properties 3. Past interactions with stakeholders in the plastics industry for development of CNTs-based products 4. Evaluation of CNTs toxicity
P2-AI	<ol style="list-style-type: none"> 1. Analysis of new solutions based on plastic matrices and nanoadditives. 2. Previous studies of the feasibility to manufacture NTC nanocomposites solutions by injection and extrusion moulding processes. 3. Materials rheology. 4. Plastic transformation processes, dispersion, etc. 5. Previous technical evaluations with stakeholders: plastic companies, clusters, associations, universities, research centres, etc.) for several sectors such as: aeronautic, energy, packaging, automotive, etc. 6. Several state-of-the-art for different technologies related to the sectors mentioned above.

Foreground

P1-GT	<ol style="list-style-type: none"> 1. Safety and Health with CNTs. 2. CNTs-plastic composites and CNTs pricing estimation around the globe 3. Market trends in developed solutions based on CNT nanocomposites
P2-AI	<ol style="list-style-type: none"> 1. Carbon nanotubes toxicity. 2. European Legal Framework 3. Safety and Health with CNTs. 4. CNTs prices. 5. Market trends in developed solutions based on CNT nanocomposites.

Exploitation claims

P1-GT	U, O	U: Glonatech will use internally the technical and market evaluations as a powerful tool to know the possible acceptance of new products based on thermoplastics reinforced with carbon nanotubes and subsequently expand its market O: Consultancy services on new products based on CNTs and plastics based on the technical and market evaluations
P2-AI	U, O	U: AITIIP claims to use internally the technical and market

		<p>evaluations as a powerful tool to know the possible acceptance of new products based on thermoplastics reinforced with carbon nanotubes (for example as results from future research projects or collaborations with stakeholders for developing new products or materials).</p> <p>O: AITIIP claims to offer consultancy services based on technical and market evaluations (via mail or meeting) of new solutions based on NTC nanocomposites which any company wants to release to market.</p>
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Protection mechanism

P1-GT	know-how
P2-AI	secrecy agreement

IPR Summary

Result Owners	Result Users	Access Rights
Background Partners: GT, AI	Exploitation Claims: GT, AI	GT, AI Claims for “Access Rights” SEZ
Foreground Partners: GT, AI		

5 IPR Agreement

5.1 Summary of main results

The following list provides an overview of the final project results which the partners identified as exploitable. The table gives an overview on which of the partners brought some background knowledge into the individual project result and who developed some foreground in those. Furthermore, the table presents the exploitation claims and access rights of all partners defined for each result:

5.2 Potential IPR Agreements

Basic principles:

The terms and conditions of Foreground's ownership, use, transfer and protection are settled in TANOCOMP consortium agreement (Article 8).

Foreground is the property of the Partner(s) carrying out the work generating that foreground. This also includes the provision of Background Information. Access rights as well as exploitation rights are granted by default to the Foreground's owner regardless of its intention to exploit the Foreground or not.

A partner not involved in generating a Foreground but willing to have an access to it, has to conclude an access right agreement with the Foreground's owner(s).

A partner not involved in generating a Foreground but willing to exploit it, has to conclude an exploitation agreement with the Foreground's owner(s).

An exploitation agreement grants inevitably access rights to the results. However, an access right agreement DOES NOT grant exploitation rights!

Based on the IPR analysis of TANOCOMP results, the following types of IPR Agreements are likely:

1: Agreement on the use and exploitation of results

The results 1, 4, 5, 6 and 8 are owned by all TANOCOMP partners. Indeed, each of these results has been generated by every TANOCOMP partners. **Consequently, all TANOCOMP partners own exploitation rights on these results regardless of their intention to exploit them or not.**

The results 3 and 7 exploitation rights are owned by AITIIP. MM is interested in exploiting results 3 and 7. GT is interested in exploiting result 7. As a consequence MM and GT will have to conclude an exploitation agreement with AITIIP in order to be authorized to exploit these results.

The results 10 and 11 exploitation rights are owned by AITIIP and GT. Only AITIIP and GT are interested in exploiting these results.

Alternatively, if all partners agree, the right to use and exploit results could be widened to all defined exploitable results. This option implements the most open scenario, as it grants access and exploitation rights to all partners for all defined results. No extra agreement between partners will be necessary.

2: Agreement on granting access rights

As mentioned previously, access rights to a specific result are granted:

- to the Foreground owner(s) by default
- to partners with whom exploitation rights are granted
- to partners who have concluded an access right agreement with the foreground's owner

TANOCOMP partners possess all an access right to the results 1, 4, 5, 6 and 8.

AITIIP owns the access rights to the results 3 and 7. The partners SEZ, GT and MM should conclude an access right agreement with AITIIP if they intend to access to these results.

AITIIP and GT own the access rights to the results 10 and 11. The partners SEZ and MM should conclude an access right agreement with AITIIP and GT if they intend to access to these results.

Alternatively, if all partners agree, the results owners could grant access rights to all TANOCOMP partners for all project results. This option implements an open scenario, as it grants access rights to all partners for all defined results. However, it should be clearly stated that the access rights do not grant exploitation right.

3: Bilateral Agreements

Bilateral agreements among the partners have to be considered to define individual terms and conditions of access or exploitation rights agreements. Those can be set-up according to the needs of the parties involved.

6 Conclusion

As clearly pointed out throughout the present document, TANOCOMP has achieved specific results which represent not only tangible achievements of the activities performed by the consortium during the two years of the project implementation, but also these entail considerable potential for further exploitation.

Here is precisely where this “IPR Draft Report” comes into play. This document provides the consortium with solid foundations on IPR relevant issues as well as on possible exploitation and protection strategies.

At the same time, the elements developed along this report should enable the partners to be able to fully tap the exploitation potential of project results by having gained clear insights on how to exploit their result(s) and how to protect them.

More importantly, this document delivers an overview on possible exploitation scenarios and paves the way to project partners to go even beyond and consider further (bilateral) agreements, which better fit to their needs and priorities.