

## WP 5 Dissemination and Exploitation of Project Results

### DISSEMINATION, EXPLOITATION & SUSTAINABLE PLAN

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## Executive Summary

Activities serving the Dissemination, Exploitation and Sustainability (DES) of results are a way to showcase the work that has been done as part of the Erasmus Plus CBHE project. Sharing results, lessons learned, outcomes and findings beyond the participating organizations will enable a wider community to benefit from a work that has received EU funding, as well as to promote the organization's efforts towards the objectives of Erasmus Plus, which attaches fundamental importance to the link between Erasmus Plus programme and policies.

This document provides an overview of the projected DES activities of the ReCap4.0 project – Reinforcing Non-University Sector at the Tertiary Level in Engineering and Technology to Support Thailand Sustainable Smart Industry. It explains the rationale behind chosen strategies and communication tools. The strategies developed here are in line with the Erasmus Plus programme requirements. The Dissemination, Exploitation & Sustainable Plan (DESP) conceived to be updated as the project evolves, and the additional activities implemented by the project partners will be reflected in the successive versions of the DESP.

An overview is given of all DES opportunities identified through traditional communication channels such as event attendance (e.g. conferences, seminars, workshops, etc.), project publications (e.g. posters, leaflets, press releases as well as conference papers, articles in professional journals, etc.) and project presentations (e.g. to local stakeholders, etc.), complemented also by online activities based around the project website, and through the main social platforms (e.g. Facebook, etc.).

The dissemination activities have been designed to target the key audiences, stakeholders and the general public in order to maximize awareness of ReCap4.0 objectives and training activities and to receive support in fulfilling project's objectives. The ReCap4.0 project's partnership acknowledges that the dissemination activities are an essential and pervasive endeavour throughout the project's entire life and integrated within all its work packages.

Exploitation of the project outcomes is also performed through an active involvement programme of the target groups and promotion on the use of the training programmes and activities including the innovative teaching methods at non-university institutions. Short course trainings will be revised after conducted for non-university institutions' teaching professionals to help exploit the application of the project results in various industry sectors.

Dissemination of the project result is the responsibility of all project partners not only during the lifetime of the project but also after the project closure so as to sustain the project impact in the long run.

## 1. Introduction

The great objectives of ReCap4.0 project are:

- 1.1. to enhance the capacity and ability of the non-university sector at the tertiary level in Thailand for the effective delivery of engineering and technology knowledge and skills related to Industry 4.0 to support Thailand Sustainable Smart Industry;

- 1.2. to strengthen a partnership among participating European and Thai universities as well as benefited non-university sector.

The actions included in the project plan are: Development of innovative training modules, training materials, and delivery process for the Industry 4.0 competence development training program according to European Credit Transfer and Accumulation System (ECTS); Implementation of modern ICT tools and methodologies for effective training; Training trainers for Thai partner universities by EU partners for sustainability of the competence development training program; Establishment of an Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry for continuing providing training, advice, forum and a channel of communication to support professional development and lifelong learning of the staff of academic institutes at the tertiary level as well as technical training for industry; and Setup of training network among the members of partner universities and of associated partners around the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry to ensure the sustainability of the project results and to be in line with European policy and practice in Thailand.

All dissemination, exploitation and sustainability activities have to support the objectives which the project aims to fulfil, and this is why those activities are a core part of the ReCap4.0 project. The scope of possible dissemination, exploitation and sustainability actions has been evaluated in terms of effective communication channels and tools to create a broad awareness amongst different target groups and to ensure a wide-reaching impact uptake and use of project deliverables among these groups.

The present Dissemination, Exploitation & Sustainable Plan:

- identifies the target groups;
- describes measures taken in order to ensure the largest possible awareness of project objectives and results within such target groups;
- identifies a schedule for dissemination exploitation and sustainability activities;
- lists different opportunities and methods to be taken or implemented, including dissemination tools such as a project website, presentation modules, etc.

## 2. Project Dissemination Exploitation and Sustainability Management

The leader of the Work Package 5 is Mahidol University (MU) and Asian Institute of Technology (AIT) is co-leader. The ReCap4.0 management structure includes the position of WP5 leader filled by Dr. Tuangyot Supeekit.

The WP5 leader is responsible for leading all important decisions regarding the dissemination and exploitation of each outcome of the project and will work closely with the Project Partners ensuring up-to- date and effective communication and interaction with targeted audiences, so that the project results can be optimally exploited. The overall mission will be to keep track of the project's achievements and to ensure its aims, in terms of dissemination and exploitation, are reached.

They set the objectives and frames for the communication activities. Participants of the project are all



obliged to take part in the dissemination, exploitation and sustainability activities to the extent defined under this Dissemination, Exploitation and Sustainability Plan (DESP).



Local dissemination of results will be carried out by the local dissemination responsible. The project partner dissemination responsible should also contribute to the overall activities. The structuring of dissemination will primarily be the responsibility of the WP5 leader. The WP leader is furthermore responsible for common dissemination documents.





Each separate activity within the project WP's run by the project partners are responsible for their respective communication activities and for reporting and co-operating with WP5 dissemination responsible on common communication activities. This means that writing reports, synthesizing results and preparing presentations will be done within each project activity and WP respectively.



Project results may influence priorities, and therefore the DESP will need to be revised from time to time on a continuous basis. The DESP is a "living" document which will be reviewed continuously by the project coordinator and WP5 leader throughout the programme period.

The project will stay updated about time tables in order to achieve maximal impact of project results. The time table of DESP activities may therefor change as more information becomes available.

*Table 1. Partnership and Roles*

Project Partner/ Role	Logo	Person in-charge
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All partners listed in Work Package 5 are main contributors to the DES activities under management of WP5 leader.

In order to perform the dissemination exploitation and sustainability activities in a coordinated and efficient way, the DES will be separated into 3 stages, each having different purposes. This is set out below.

- Initial stage – first year – the DES activities in the first year will be arranged with a focus on raising awareness of the project and inform prospective audience about the ReCap4.0 project and upcoming activities.
- Middle stage – second year – the DES activities in this stage are planned with the purposes of informing audience with past activities, upcoming activities, progress of each work package and intermediate result of the project.
- Final stage – third year – the DES activities in the final stage will focus on informing the progress of each work package and results obtained from the projects as well as plan to maintain the results of the project to ensure sustainability.

Therefore, every partner should actively contribute to DES activities by:

- Promoting and disseminating the project and its results (deliverables and other results);
- Using their network to support the dissemination of project information;
- Presenting the project at relevant conferences, workshops and other events;
- Helping to promote ReCap4.0 activities and training events, in particular engaging

key stakeholders to act as multipliers and to motivate participants.

- Providing the logo of their own organisation to be used in the dissemination materials;
- Including the logos of European Union funding body (i.e., Erasmus+ Programme) and make proper reference to this body in all dissemination materials (printed or electronic);
- Reflecting its contribution to the Dissemination Exploitation and Sustainability Strategy.
- Submitting to the WP5 leader the dissemination materials used on all occasions in order to contribute to different project reports;
- Submitting to the WP5 leader the proofs of dissemination activities (Dissemination Exploitation and Sustainability Time Plan, Dissemination Reports, Activity Reports, Presence sheets, Photos, Videos, etc.);
- Submitting to the dissemination WP5 leader the feedback obtained in all dissemination events for reporting reasons and for further improvement and development of Dissemination, Exploitation & Sustainable Plan (DESP);
- Drafting and submitting the periodical Dissemination Reports at each 6 months meeting of Project Executive Committee.

### 3. Definitions

*Table 2. Terminology and meaning*

Terminology adopted in this document	Explanation and meaning
Results of activity	Achievements of the project that received EU funding. Results can be classified as either (a) outputs or (b) outcomes.
Output	A tangible product which is produced by a given project and which may be quantified; outputs can be accessible products like curricula, studies, reports, materials, events, or websites.
Outcome	An intangible added value achieved through the achievement of the project objectives and targets. Ordinarily, such added value defies quantification, whether it covers concrete events and actions such as training, training platforms, content or methodology, or more abstract consequences such as increased awareness, increased skills or improved abilities, knowledge and experience gained by participants, partners or other stakeholders involved in the project.

Terminology adopted in this document	Explanation and meaning
Dissemination	A planned process of providing information on the results of programmes and initiatives to key actors. It occurs as and when the result of programmes and initiatives become available. In terms of the Erasmus+ Programme this involves spreading the word about the project successes and outcomes as far as possible. Making others aware of the project will impact on other organisations in the future and will contribute to raising the profile of the organisations carrying out the project. To effectively disseminate results, an appropriate process at the beginning of the project needs to be designed. This should cover why, what, how, when, to whom and where disseminating results will take place, both during and after the funding period.
Exploitation	The planned process of transferring the successful results of the programmes and initiatives to appropriate decision-makers in regulated local, regional, national or European systems, on the one hand, and (b) a planned process of convincing individual end-users to adopt and/or apply the results of programmes and initiatives, on the other hand. For Erasmus+ this means maximising the potential of the funded activities, so that the results are used beyond the lifetime of the project. It should be noted that the project is being carried out as part of an international programme working towards lifelong learning and supporting European policies in the field of education. Results should be developed in such a way that they can be tailored to the needs of others; transferred to new areas; sustained after the funding period has finished; or used to influence future policy and practice. Consists of mainstreaming and multiplication.
Mainstreaming	The planned process of transferring the successful results of project and initiatives to appropriate decision-makers in regulated local, regional, national, or European systems.
Multiplication	The planned process of convincing end-users to adopt and/or apply the results of project. This can happen at both project and programme level.
Valorisation	Dissemination and exploitation of results.
Sustainability	The capacity of the project to continue and use its results beyond the end of the funding period. The project results can then be used and exploited in the longer-term, perhaps via commercialisation, accreditation or mainstreaming. Not all parts of the project or results may be sustainable and it is important to view dissemination and exploitation as a progression that extends beyond the duration of the project, and into the future.

Terminology adopted in this document	Explanation and meaning
Impact	The effect that the activity carried out and its results have on people, practices, organisations, and systems. Dissemination and exploitation of results plans can help to maximize the effect of the activities being developed so that they will impact on the immediate participants and partners for years to come. Benefits to other stakeholders should also be considered in order to make a bigger difference and get the most from the project
Dissemination, Exploitation and Sustainability Strategy	The identification of crucial project objectives, activities, results, expected impact, milestones, suitable for dissemination, main audience and target groups, dissemination tools and finally implementation of all these goals.
Dissemination, Exploitation and Sustainability Plan	The plan, which is prepared based on the dissemination strategy, more specifically places all activities of the dissemination strategy into the time frames, responsibilities and as such serves as the timeline of the whole dissemination strategy.
Good Practice	An exemplary project (including results or processes and procedures- approaches implemented) which has positively influenced systems and practices through its activities and results. Consequently, these good practices are worth transferring and exploiting in different contexts and environments by new users or entities.

#### 4. Project's dissemination exploitation and sustainability tasks

In order to achieve the DES objectives, the following tasks were established in WP5 of the ReCap4.0 project:

**Task 5.1** Development of a Dissemination, Exploitation and Sustainable plan,

**Task 5.2** Creating a project website and maintaining it throughout the project lifetime to support the dissemination strategy, and communication and collaboration among partners,

**Task 5.3** Inviting non-university sector to participate in the training program and preparing for online training registration

**Task 5.4** Production of dissemination materials,

**Task 5.5** Publications in professional journals, newspapers, magazines, brochures and social media

**Task 5.6** Setting up training network among the members of partner universities and of associated partners

**Task 5.7** Organizing dissemination events with relevant stakeholders,

**Task 5.8** Organizing the final dissemination-sustainability conference.

## 5. Dissemination strategy

The dissemination strategy defines clear guidelines for the dissemination activities including all operational elements of dissemination. Project results will be disseminated to the relevant target groups with appropriate content and on time. The content, timing and frequency of the various dissemination activities are defined in this plan. Dissemination strategy of the ReCap4.0 project consists of the following core components:

- **Objectives of dissemination:** identify the project dissemination objectives;
- **Target groups:** identify crucial target groups and bodies that are interested in the project;
- **Key messages:** identify core project messages for specific target groups;
- **Dissemination levels:** identify dissemination levels, tools and activities;
- **Dissemination methods:** identify dissemination methods, tools and channels;
- **Dissemination time plan:** identify a plan of dissemination activities.

The partnership approaches towards dissemination and exploitation of results are focused on:

- **A clear focus on user needs** – the project is based on a clear and well-argued presentation of the analysis of end-users and actual needs for the target group concerned and the results proposed are a response to those needs.
- **Shared responsibility across all partners** - responsibility for the dissemination and exploitation of results lies with the whole partnership in their capacity as the owner of those results thus each partner has a role to play.
- **A continuing process** - activities are conceived and planned from the beginning of the implementation.
- **Life after the end of the project** - include activities designed to ensure the continuing visibility, accessibility and use of the results after the end of the project, to ensure maximum impact and sustainability.

The principal messages to communicate within the Dissemination, Exploitation and Sustainability Plan (DESP) are conceived to:

- Raise awareness among members of the consortium to build an identity and profile for the project and its outcomes within the communities belonging to the Program Erasmus Plus;
- Understand the methods applied to target groups and beneficiaries for deep involvement in the project and future knowledge transfer;
- Involve the overall actors to settle on a common language and shared behaviour to facilitate the achievement of all the objectives of the project;
- Support stakeholders and partners to better understand the main purposes of the project;



- Act via networks and informal channels to transfer, capitalize and value best-practices.

### ***5.1. Objectives of the dissemination activities***

The main aim of the dissemination strategy is the dissemination and exploitation of knowledge among the project partners and knowledge transfer to the interested stakeholders in Thailand. The dissemination objectives of ReCap4.0 project are to:

- Promote and raise awareness about the ReCap4.0 project activities and results;
- Reach the maximum number of stakeholders and key actors at a local, and national level;
- Provide important information to key actors (institutions, individuals, etc.);
- Disseminate training modules, training materials and delivery process for the Industry 4.0 competence development training as well as ICT tools and methodologies for effective training to achieve their continued and sustained promotion and support;
- Disseminate other activities and obtained results;
- Achieve both mainstreaming and multiplication of the products;
- Give visibility to the funding body (EACEA - Erasmus Plus - CBHE).
- Establish an Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry for continuation of the professional development training of the staff of academic institutes at the tertiary level as well as technical training for industry;
- Set up training network among the members of partner universities and of associated partners around the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry to ensure the sustainability of the project results.

While defining the purpose of the dissemination, the first step is to decide on the audience, message, method, and timing of the dissemination. The main purpose of ReCap4.0 dissemination activities is to achieve involvement of all relevant stakeholders and to provide updated information of project results. The dissemination activities will be therefore focused on:

- Identify target groups both inside and outside partnership at different Thailand territorial levels: national, regional, local, also in European and international;
- Identify the communication needs of the target groups;
- Establish core messages of the project, to be disseminated to the target groups;
- Identify dissemination methods and tools;
- Disseminate the results, solutions and knowledge for training learnt within the project to the general audience;
- Define timing of dissemination activities;
- Define partners' responsibilities in dissemination activities;



- Raising awareness by informing general audience about the ReCap4.0 project results;
- Dissemination of understanding by educating the target audience about the project work. The dissemination will be focused on target audience, which can directly benefit from the project work.
- Ensuring a good communication between the project consortium and the target groups;
- Intensively use the project deliverables (events and materials) for project's promotion;
- Enhancing the discussion and spread of expertise on relevant issues leading to scientific progress in this domain;
- Exploitation of project results
- Offering provision for sustainability.

## 5.2. Target groups

Target groups are entities and/or individuals that can potentially benefit from the ReCap4.0 project results. For productive and effective dissemination and exploitation of the project outcomes, it is essential that target groups are identified at an early stage of the project.

The scope of the project and the importance of mentioned activities results in a variety of target groups. According to the application and to subsequent research, the following target groups have been identified in Table 3.

*Table 3. Target groups*

<i>Group</i>	<i>Components</i>
Group 1	Teaching Staff
Group 2	Trainees
Group 3	Administrative Staff
Group 4	Technical Staff
Group 5	Others
Subgroup 5.1	technical universities from Thailand
Subgroup 5.2	companies from industry
Subgroup 5.3	consortiums network of contacts

Attention is paid to all the target groups mentioned, but special attention is focused on the target groups 1, 2 and 5. They can support the dissemination activities and help to spread the information to very extensive networks and to the public both in direct and indirect ways.

Dissemination activity related to training activities will involve project members, and teaching staff from non-university sector. Training invitation for teaching staff from non-university sector will be distributed during visits to those institutions and online via the project website and social network. The invitation will be done using promotional leaflet with similar pattern to the poster for the project and training information. Visits to Rajabhat universities and Rajamangala universities will also be arranged for promoting the project and training invitation. Online training registration form will be created for teaching staff of Rajabhat universities and Rajamangala universities. Promotion of the project activities including trainings will be done using the project website and social media. All events will be documented and displayed on the project website. At local level, all target groups will be

reached by dissemination tools such as delivering promotional materials, the project website, social and digital media. Leaflet for training activities in Thailand will be used to promote the training modules, materials, and teaching methodologies. This training material and information will also be exploited at the setup training network to ensure sustainability of the project. Teaching staff of Rajabhat universities and Rajamangala universities (Trainees) will be in direct contact with the Thai partners to analyse their needs for improvement of training modules, material, and teaching methodologies. At institutional level each of the Thai partner will extend the coaching and training program obtained from the project to improve teaching and coaching skills and plan to upgrade the teaching infrastructure. At Thailand national level, the cooperation will be settled between the set training networks including Thai consortium members, companies from industry and representatives of national bodies to impact on national efforts.

### 5.3. Database with target groups

A database with target groups will be developed by the project's partnership. The database will be used for dissemination and sustainability activities such as sending e-newsletters, invitation to project's trainings and events, etc.

Each entry in database will be composed by:

- target group type (Thai trainers from Thai partners, trainees from non-universities, other university and non-university professors, as well as teaching staff, trainees, administrative staff, technical staff, companies from industry and consortiums network of contacts etc.);
- name of recipient;
- organisation;
- contact information (Email, Line ID, Facebook ID).

Each Thai partner will contribute to the database with at least:

- 3 trainers;
- 15 non-university teaching staff;
- 10 representatives of industrial partners;

The WP5 leader will collect entries from all partners and will maintain the database.

### 5.4. Key messages

Once the purpose and audience of the dissemination are clear, the key messages can be defined. The principal guidelines of key messages are to:

- **be clear, simple, and easy to understand.** The language should be appropriate for the target audience, and non-technical language will be used wherever possible;
- **tailored to the target groups.** It is of paramount importance to carefully consider what they should know about the project. It is possible to send the same message to different audiences, but the relevance of the message to the target group should be revised each time;
- **information should be correct and realistic.**

The key messages are:

- Enhancing the capacity and ability of the non-university sector at the tertiary level in Thailand for the effective delivery of engineering and technology knowledge and skills related to Industry 4.0 to support Thailand Sustainable Smart Industry;
- Training networks and centres reach out to other non-universities as well as other sectors to ensure sustainability of Industry 4.0 in Thailand.

There are three main fields of action:

- The use of dissemination materials;
- The use of communication channels;
- The use of events for dissemination activities.

The use of dissemination materials of the ReCap4.0 project will range from a website, leaflets, and posters to PowerPoint presentations. These materials will be available to the project partners via a depository. The partners will use them at the dissemination events and also at all proper events and activities.

The communication channels will include the project website, social network, e-newsletters, and interviews and articles in mass media.

The dissemination activities refer to events organised especially for the dissemination of ReCap4.0 (like dissemination events and training sessions for Trainers from Thai partners and for non-university sector), but also to scientific educational sessions, workshops, conferences, etc. where project partners can make presentations about ReCap4.0 project and its achievements.

### 5.5. Dissemination levels

The dissemination levels for different tools and activities are presented in Table 4.

*Table 4. Dissemination levels for different tools and activities*

Dissemination tool or activity	Dissemination level					
	Department/ Faculty	Institution	Local	Regional	National	International
Dissemination, Exploitation & Sustainable Plan	x	x	x	x	x	x
Logo	x	x	x	x	x	x
Presentation template	x	x	x	x	x	x
Website	x	x	x	x	x	x
Printed materials	x	x	x	x	x	x
Electronic materials	x	x	x	x	x	x
Publications in professional media			x	x	x	x

Dissemination tool or activity	Dissemination level					
	Department/ Faculty	Institution	Local	Regional	National	International
Social media	x	x	x	x	x	x
Training courses	x	x	x	x	x	
Dissemination events		x	x		x	X
Final conference	x	x	x	x	x	x
Training centres and networks	x	x	x	x	x	

## 5.6. Dissemination Methods, Tools and Channels

### 5.6.1. Materials & Contents

#### 5.6.1.1. Project logo

A graphic identity is composed of visual elements that aim to represent the project's partnership. It is important to follow the graphical identity, since good use of it will help to consistently communicate and disseminate the project. The main graphic element of the ReCap4.0 project is the logo (Figure 1).



Figure 1 – ReCap4.0 Project Logo

The project logo was designed and proposed by the coordinator organisation, and it was conceived according to the visibility rules of the Erasmus Plus Programme. This project logo, the EU emblem, and the disclaimer "Co-funded by the European Union" will be posted on every single publication, poster, and leaflet released during the project lifetime.

#### 5.6.1.2. PowerPoint Master Slides

PowerPoint slide masters were created for the ReCap4.0 project's purposes. It is a general slide master for the overall project (Figure 2) and, also, each partner has its own slide master. Each work package has its own PowerPoint slide master.

The language used in the presentations is English. Each partner can, when necessary, translate the presentation into his own national language (using national characters). The ready-made PowerPoint slide master serves as a basis for the successful presentation of the project at conferences, workshops

and other events where the project will be presented. The presentation can and should be adapted to the respective context and audience.

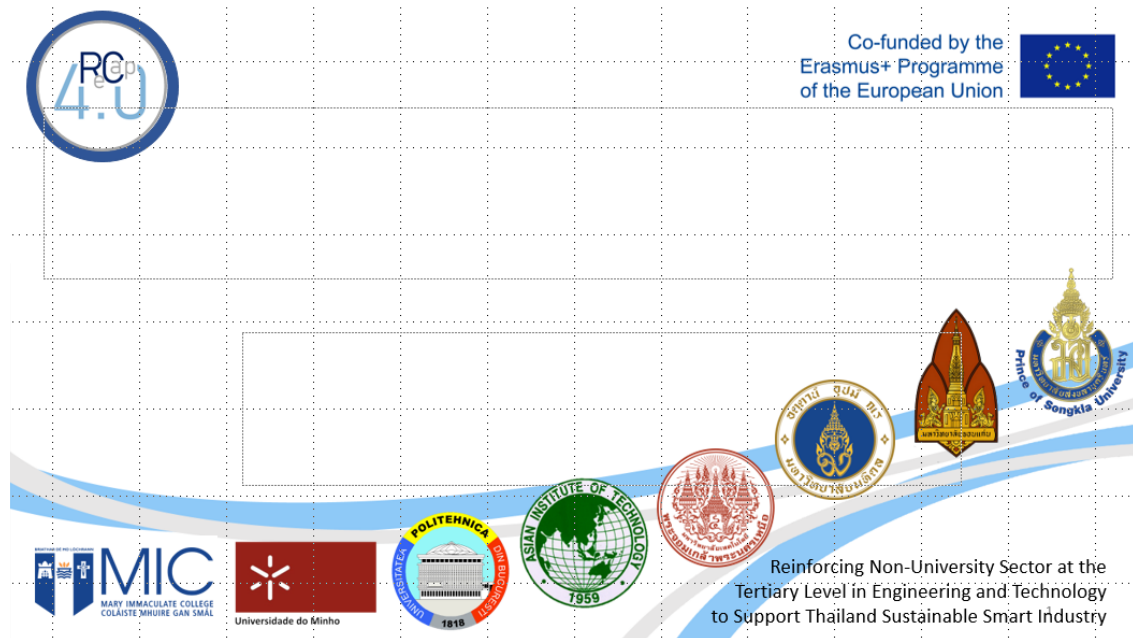


Figure 2 – ReCap4.0 First Page of Project Slide Master

## 5.6.2. Document and media sharing tools

### 5.6.2.1. Project website

An official website of the project serving as a main dissemination tool was designed and established and will be regularly updated. Links to the ReCap4.0 project website should be inserted at partners' websites wherever possible.

The project website URL address is: <http://recap4.ait.ac.th/>

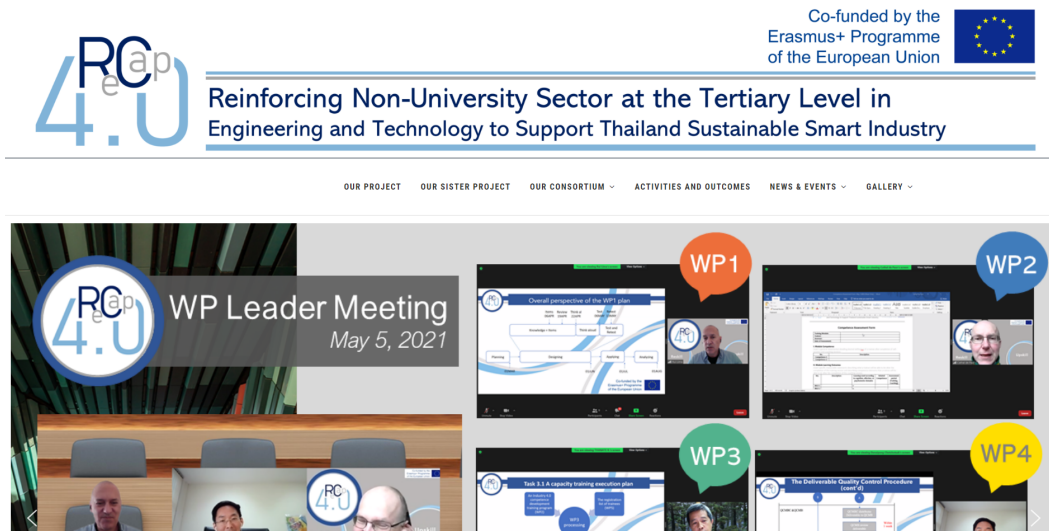
The project website will include the project description, presentations of project partners, aims, objectives, results, and links to other resources. It will present the results and outcomes of the different activities which are downloadable so that interested parties can access relevant documents elaborated by the project consortium.

The website (Figure 3) of the project will be the public image of the project. The site will allow users to readily collect on-line information about the project and about issues, which might be of interest to stakeholders.

The website will be updated during the project and at least 2 years after its end. The website will include all relevant information about the project, links, gateway to the data base etc. The deliverables /analysis, developed in the framework of ReCap4.0 will be made available on the website. The website will be designed to present the scope and objectives as well as activities and outcomes of ReCap4.0,

and will be updated as key milestones are reached.

The project web site will be linked to the project partners' websites and all uploaded material will be freely - downloadable.



*Figure 3 – Snapshot of the Recap4.0 Website*

The website is and will be the main interface of the online infrastructure of the project which will also include:

- Section of news and events related to the project activities;
- Social networks accounts that support the creation of a community page on Facebook and YouTube to help disseminate the ReCap4.0 project.

WP5 co-leader will be in charge of the regular website updating, preparing newsletters that provide information to the consortium members as well as to the wider community in such a way that the project website is not only useful for academic and research community but for businesses and society as well. After each Project Executive Committee meeting, the project coordinator will be responsible for uploading the activity report onto the project website.

The ReCap4.0 website will be used both for internal usage and external information dissemination.

## **Public section**

The list below includes proposals for items to be published on the website:

- Information about the project including a summary, objectives and main activities to achieve objectives;
- Information on MSIE4.0 project which originates the ReCap4.0 project
- Project consortium (with links to partners' websites);
- Activities and Outcomes of Work Packages;
- News and Events which are also displayed at the website's first page.

- Publications /Analysis, etc.;
- Contacts information;
- Links;
- Private Area.

### ***Private section***

The website has also a password-protected area for use by project partners for internal communication, along with confidential project information. The password-protected area allows the partners to use some extra-features such as asynchronous communication (i.e. a web-based forum, group mailing, file sharing, etc.). The main project website will also function both as a promotional tool for project dissemination and as a channel for internal project communication. It will be developed and maintained by WP5 co-leader with the consultation from WP5 members and the provision of materials from all other partners. The private section can be accessed from the “Member Space” link at the bottom of the project website or <https://sites.google.com/ait.asia/resource-for-recap-4-0/home>.

#### ***5.6.2.2. Project partners’ websites***

The project partners will ensure that ReCap4.0 project is presented on their websites. The objective of project presentation on partners’ websites is to spread knowledge of the project and its related activities to those interested in the activities carried out by the various partners.

#### ***5.6.3. Dissemination printed materials***

Information about the project objectives, upskill and reskill framework for the training programme, together with proper introduction of training programme curriculum and training results of ReCap4.0 project will be prepared in the form of printed dissemination materials and made available publicly.

To strengthen the project's dissemination activities, flyers or leaflets and presentations on events will be designed. They will be in Thai and English. They will also be available in electronic format for translation by European consortium members (if necessary). Also, the electronic leaflets and posters will be available on project website for download. The flyers, leaflets, presentations on events will be in the same visual style as the website to provide a graphic unity for the ReCap 4.0 project.

A dissemination booklet indicating the project achievements will be designed and distributed starting with the final conference in Thailand.

#### ***5.6.4. Dissemination electronic materials***

##### ***5.6.4.1. Newsletter***

To increase public awareness of the project and report periodically on the project’s progress to the beneficiaries, Newsletters will be produced and delivered to target groups twice a year. The letters will be in an easy-to-read format, with key project information, activities, and results.



At the proper moment, WP5 leader will ask all the partners to contribute with news, information about dissemination activities, photos and other graphic materials, and useful articles relating to the project such as smart Industry 4.0 and teaching methods. Also, all the partners will be responsible for acquiring information about training sessions and other activities of the project.

Each partner is obliged to provide information and materials mentioned above when required. It is a good idea that each partner continuously collects information and materials for the newsletter. Also, each partner is responsible for providing different stakeholders with the newsletter. Dissemination of the newsletters will be organised via emailing and will be posted on the project's website.

#### **5.6.4.2. Social networking tools**

The project presence on social network platforms (e.g. Facebook, YouTube) has been established to reach a greater number of professionals and the general public. Via social media, various information about the project will be shared, such as:

- Updates on the project status;
- Updates on the publication of ReCap4.0 official documents/deliverables;
- News on upcoming meetings and events, where the project is directly involved (as organiser or as participant);
- Sharing project information in an efficient and effective way with wider audience.

A Facebook page was created (<https://www.facebook.com/ReCap4Thailand>).

### **5.7. Channels of dissemination**

Many different channels are suitable for disseminating the project results. In order to reach out the above target groups, ReCap4.0 will use a number of channels and will cooperate with other relevant national and international organizations, programmes and projects sharing similar objectives. The following channels will be used for dissemination of information on the implementation of the project its activities and its results:

#### **Internal channels (special audience – ReCap4.0 members):**

- **ReCap4.0** conferences, meetings, and trainings
- **ReCap4.0** website
- **ReCap4.0** Project Partners' websites

#### **Other channels (wide-range audience):**

- Project website;
- Mass media;
- Mailing lists;
- Third parties' websites;
- Project events;
- Partners' offices;
- Non-University sector and Company visits;
- Journals, newspapers;



- Scientific journals;
- Networks
  - working parties
  - technology platforms;
  - industry networks;
  - research networks;
  - thematic clubs, associations;
  - NGO networks;
  - social networks.

To decide which DES channels are most suitable, the following aspects will be considered:

- What is being disseminated? Respectively, the results or the product of the project;
- The context of the dissemination;
- The target groups to be reached with information on the result or the product;
- Additional activities to draw the target group's attention;
- The reach, in terms of breadth and depth, of the dissemination channels;
- The attractiveness of the dissemination channels for the target groups;
- The need for external experts, e.g. to make a good video or organize a symposium;
- The cost of the dissemination channels;
- The returns that can be expected.

It is vital for a solid, well-founded link to be created between the target groups and the dissemination channels.

## **5.8. Dissemination activities**

### **5.8.1. Publications in professional journals, newspapers, magazines and social media**

The consortium members will regularly disseminate project outputs achieved at each stage of the project in relevant professional journals, conference proceedings, newspapers, magazines, and social media. This task will be reviewed every six months. The project results will also be printed for dissemination purpose. The project coordinator, AIT and all other partners are responsible for this deliverable. This is in-kind contribution of all partners to the project.

Scientific publications are central to maximizing the impact of the project within the scientific community. Therefore, publications in peer-reviewed journals will be strongly encouraged to ensure the high visibility of the project partners' work within the scientific community.

Working papers will be published as intermediate outputs aimed at encouraging a broader understanding of and debate on the themes of the project. It will be ensured that all publications produced in the ReCap4.0 project will be subject to international scrutiny and validation of the highest standards.

Moreover, all the publications, printed materials, and other dissemination materials must include

- The project logo as shown in Figure 1
- The logo of European Union with a declaration



*Figure 4 – European Union Logo with a declaration*

- A declaration mentions “Co-funded by the Erasmus+ Programme of the European Union”
- A disclaimer below:  
“This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein”.

### **5.8.2. Dissemination events with relevant stakeholders**

Dissemination events (including visits to non-university institutions) will be organised at each Thai university with two aims:

- disseminate project objectives, activities and outcomes;
- promote the concepts of MSIE4.0 and the new training programme of ReCap4.0 and training centre.

The first public seminar will be held online concurrently with the beginning of the kick-off meeting. EU members will share their knowledge, experience, and good practices from EU institutions to the local public on the topics in line with the project. Similar public seminars will be when EU members visit Thailand for the third and fifth project meetings. Additional events will be organized at Thai universities after the completion of key activities such as to promote the training program after PEC approval. Participants in these seminars will be academic staff, researchers, potential students, industry representatives.

A major dissemination event will be the final conference. The final conference will be organised in M35 by AIT and will involve academic staff, students, administrative staff, policy makers, businesses and relevant authorities in the country. Two representatives from all participating institutions as well as all relevant stakeholders from Thailand will make presentations in the conference. Universities that are not directly involved in the project activities will be invited to participate in the conference. The conference will have two aims: dissemination of the project results and presentation of the sustainability measures in order to develop the project achievements after the ending of the EU financing.

During the conference all project achievements and the foreseen sustainability measures will be presented together with the impact of the project on consortium universities. Trainees will be invited to present their experiences. This will be the final step that helps promote the project results and makes final conclusions about the project. A dissemination booklet with all project results will be edited and released.

### ***5.8.3. Establishing training network among project partners, associated partners and IE enterprises for Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry***

Throughout the project period, the information about the establishment of the centre will be shared to all stakeholders by the project members. During the establishment of the centre in the last year of the project, WP 5 leader will invite them to join as members of the centre. Benefits of being a member include receiving information about the training, seminar, activities, events, etc., participating in the activities, and acquiring service such as attending trainings and short courses at special fee rates.

Training network among the members of partner universities and of associated partners will be setup as a part of creating long term connection between trainers and trainees. 80 members is expected at the end of the project.

### ***5.8.4. Expected results***

The expected results of the dissemination activities are the following:

- a dissemination, exploitation & sustainable plan (approved by all partners);
- an official project website;
- online registration form for trainees
- other dissemination materials (brochures, posters, newsletters, etc.);
- articles in professional journals, newspapers, etc., papers presented at scientific conferences, press releases, etc.;
- activity on social media;
- dissemination events such as seminars with relevant stakeholders organised;
- training centres and training networks with 80 members established
- a final conference in Bangkok.

The impact of the dissemination activities carried-out in the ReCap4.0 project is expected to be:

- awareness, non-university institutions and industrial companies, of the new curriculum developed by previous MSIE4.0 project, training programme for non-university institutions, and proposed training centres which will be set up during the project;
- involvement of the target groups in the project's activities;
- enhanced visibility and attention focused towards the introduction of Industry 4.0 and related concepts and principles in the higher education;
- accessibility to the project's official reports, assessment results, information and activities;
- collaboration among the partners and the associated academic institutes;
- innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry;
- visibility and recognition of the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry;
- sustainable network between project partners and enterprises created.

## 6. Dissemination Exploitation and Sustainability Time Plan

Many actions and events will be organized during the ReCap4.0 implementation period with the purpose to disseminate project results.

### 6.1. Dissemination Exploitation and Sustainability Time Plan of the project (DESTP)

A Dissemination Exploitation and Sustainability Time Plan of the project (DESTP) will be elaborated by the WP5 leader.

Event calendar will be posted on the project website in order to provide information to partners, students and other website visitors about relevant events in appropriate areas of interest. The organization of events will be undertaken by every Consortium partner, but with coordination with the partner responsible for dissemination activities

According to project application and considering the delay, the time plan for dissemination Work Package 5 is as follows and the DESTP will be summarised in Table 5:

- (1) Development of a Dissemination, Exploitation and Sustainable Plan of the project – May 2021
- (2) Creating a project website and maintaining it throughout the project lifetime to support the dissemination strategy, and communication and collaboration among partners – Available from February 2021 / updating regularly
- (3) Production and dissemination of project materials (24 weeks)
  - Drafting and distribution of newsletters – August 2021, May 2022, October 2022, March 2023, July 2023
  - Design of poster and leaflet – April 2021
  - Inviting non-university sector to participate in the training programme – April to July 2021
  - Preparing online training registration – April 2021
  - Distribution of poster and leaflet – Regularly
  - Design and translation of final booklet – July 2023
  - Launch of public tender for printing of brochures – September 2023
  - Publications in professional journals, newspapers, magazines, and social media – Available from M18 of the project
  - Organizing dissemination events with relevant stakeholders– March 2021, October 2022, January 2023 July 2023
  - Setting up training network among the members of partner universities and of associated partners – After M30 of the project
  - Organizing the final dissemination-sustainability conference – July 2023
  - Project dissemination report – For each 6 months meeting of Project Executive

#### Committee

- Sustainable network between project partners– to be completed in M36

## ***6.2. Execution Plan of the Dissemination and Exploitation of project results***

According to the purposes of Dissemination and Exploitation that are separated into 3 stages as presented in Section 3, execution of the dissemination and exploitation tasks (Section 5) will commence at different period of the project as follows

### ***6.2.1. Initial Stage***

In the initial stage during the first year of the project, as dissemination tasks are planned to focus on raising awareness of the project and inform prospective audience about the ReCap4.0 project and upcoming activities, the dissemination in the first year with the following tasks

**Task 5.1** Development of a Dissemination, Exploitation and Sustainable plan to identify all the activities to be performed by the consortium members to promote project results. This task is started in April 2021 and the first draft will be launched in May 2021.

**Task 5.2** Creating a project website and maintaining it throughout the project lifetime to support the dissemination strategy, and communication and collaboration among partners. The project website will be created at the beginning of the project and will be used as the main dissemination tool. The website was created in January 2021 and has been available to the public since March 2021. During the initial stage, the website will be updated with the project information, events, and activities performed by the project consortium members to ensure visibility of the project. Moreover, the information regarding registered trainees will be available on the website at this stage.

**Task 5.3** Inviting non-university sector to participate in the training program and preparing for online training registration. This task will be performed and completed within the initial stage. WP5 team led by AIT will contact the administration and teaching staff of the non-university sector at tertiary education level in Thailand to create awareness on the importance of capacity building for Industry 4.0, introduce the Industry 4.0 competence development training program, and invite them to participate in the training program. Visits to the non-university sector institutions has stated in April 2021 and will be completed in July 2021. Accompanied with, online registration will be created and ready for service by the first visit to non-university institution for the teaching staff to register in April 2021.

**Task 5.4** Production of dissemination materials. The dissemination materials in the initial stage aims to introduce the project and the competence development training program.

- A poster with the ReCap4.0 project information and training program will be created with in April 2021 and distributed to non-university institutions, partners, and
- A leaflet with similar format and content with the poster will be used as another dissemination material. The leaflet will be distributed to non-university institutions by all Thai members via emails and WP5 team visits.
- A short presentation video of ReCap4.0 project will be available in June 2021.

- An e-newsletter – the first issue of newsletter will be released in August 2021, with the project information and short articles regarding project members, industry 4.0, and lifelong learning.
- A leaflet with information about the result of WP1 will be created in August 2021 for dissemination to the non-university institutions for their use

**Task 5.7** Organizing dissemination events with relevant stakeholders. The first dissemination event was planned and held in March 2021 with emphasis on providing information about the project, training program and its significance. Due to the COVID-19 pandemic, the second dissemination event for the initial stage will be substituted. To keep engaging with the registered trainees and other target groups, the information regarding the upcoming training courses and other information such as EU partners and trainers. Moreover, the results from WP1 which can be expected in the initial stage will be disseminated in this stage.

### **6.2.2. Middle Stage**

The middle stage or the second year of the project, the DES will emphasise on dissemination of project results from some work packages as well as some other upcoming activities. The key message to disseminate in this stage is presentation of training activities including training Thai trainers and training the trainees as well as the outcomes from these training activities. The dissemination in the second year will include the following tasks.

**Task 5.2** Creating a project website and maintaining it throughout the project lifetime to support the dissemination strategy, and communication and collaboration among partners. In the second year, the website will be updated with the project events, activities performed, and results from some work packages such as WP2 and WP3 so that the project will be useful for the academic, research community, businesses and society.

**Task 5.4** Production of dissemination materials. The dissemination materials in the middle stage aims to inform the project results and the competence development training program.

- A leaflet with information about the activities, training courses, coaching activities and intermediate results of WP2 and WP3 will be created to disseminate the non-university institutions for their use. This leaflet will be planned and created in May 2022 after the intermediate result of WP2 is available.
- An e-newsletter – the second and third issues of newsletter will be released in this middle stage with the information regarding WP2 and WP3 activities, training sessions and short articles regarding project results. These two issues will be expected in May 2022 and October 2022.
- A video presenting training and coaching activities will be created when there is enough information of some completed training sessions. This video can hopefully be expected in November 2022.

**Task 5.5** Publications in professional journals, newspapers, magazines, brochures and social media. In the middle stage, Task 5.5 will be initiated in this stage. The consortium members will regularly disseminate project outputs of the project in relevant professional journals, conference proceedings, newspapers, magazines, and social media. This task will be reviewed every six months. The first

publication will be drafted and submitted to a journal in April 2022 and hopefully be released in 2022.

**Task 5.7** Organizing dissemination events with relevant stakeholders. The third dissemination events will be planned and held in the second year of the project or when EU members visit Thailand with emphasis on sharing the findings from the project, experience, and good practices to the local public on the topics in line with the project as well as information about the project results and upcoming activities. This events are expected to be held in October 2022 or when Thai government allows.

### **6.2.3. Final Stage**

The final stage or the third year of the project, the DES will focus on dissemination of project results especially the result of training and coaching activities of WP2 and WP3 and planning for sustainability of the project. The DES in the third year will include the following tasks.

**Task 5.2** Creating a project website and maintaining it throughout the project lifetime to support the dissemination strategy, and communication and collaboration among partners. In the third year, the website will be updated with the project events, activities, and results. The information regarding training and coaching activities, outcomes, and feedbacks of WP2, WP3 will be available on the website at this stage. Moreover, the information about the establishment of the training centre will be available at this stage.

**Task 5.4** Production of dissemination materials. The dissemination materials in the final stage aims to inform introduce the project and the competence development training program.

- A leaflet with information about training activities of WP2 and coaching activities of WP3 will be created to disseminate the non-university institutions for their use. It can be expected in March 2023.
- Two e-newsletters – the fourth and fifth issue of newsletter will be released in the final stage, in March 2023 and July 2023, with the project activities, training sessions, short articles regarding project results as well as setting up a network for sustainability.
- A leaflet and call for papers for the final conference will be planned and designed in March 2023.
- A dissemination booklet with all project results will be edited and released at the final dissemination-sustainability conference. This booklet will be planned in July 2023 before the dissemination-sustainability conference.

**Task 5.5** Publications in professional journals, newspapers, magazines, brochures, and social media. Continuing from middle stage, the consortium members will regularly disseminate project outputs of the project in relevant professional journals, conference proceedings, newspapers, magazines, and social media.

**Task 5.6** Setting up training network among the members of partner universities and of associated partners. In this final stage, to ensure sustainability of the project, the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry will be established. During the establishment, WP5 leader and co-leader will invite the partners and other stakeholders to join as members of the centre starting from M30 of the project, April 2023.

**Task 5.7** Organizing dissemination events with relevant stakeholders. The fourth and fifth events will



be planned and held during the third year of the project to disseminate the findings and results from the project. The fourth event will be held in January 2023 and the fifth event will be held in July 2023 or concurrently with the final conference.

**Task 5.8** Organizing the final dissemination-sustainability conference. This will be the final step that helps promote the project results and makes final conclusions about the project. The final conference will be organised before the end of the project by AIT and will involve academic staff, administrative staff, policy makers, businesses, and relevant authorities in the country. Universities that are not directly involved in the project activities will be invited to participate in the conference. The conference will have two aims: dissemination of the project results and presentation of the sustainability measures to develop the project achievements after the ending of the EU financing. During the conference all project achievements and the foreseen sustainability measures will be presented together with the impact of the project on consortium universities. Trainees will be invited to present their experiences. The plan for final conference will be started in July 2023 and the conference will be held in September 2023.

The Execution Plan of the Dissemination and Exploitation of the ReCap4.0 project is summarised in Table 5 and presented in a Gantt chart in Table 6.

*Table 5. Summary of execution plan for Dissemination and Exploitation*

Dissemination	Tentative Date	Audience	Message	Source/ Responsibility
Initial Stage: raising awareness of the project				
5.1 Dissemination, Exploitation and Sustainable plan	First draft in May 2021	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Technical staff</li> <li>- Administrative staff</li> </ul>	<ul style="list-style-type: none"> <li>- Plan of dissemination activities to ensure outreach of the project</li> </ul>	WP5 leader
5.2 Project website	Mar 2021	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Technical staff</li> <li>- Non-university sectors</li> </ul>	<ul style="list-style-type: none"> <li>- Project information</li> <li>- Invitation to participate in the training program</li> <li>- Online training registration</li> <li>- Profile of registered trainees</li> </ul>	WP5 team
5.3 Inviting non-university sector to participate in the training program and preparing for online training registration	Apr 2021	<ul style="list-style-type: none"> <li>- Non-university sectors</li> </ul>	<ul style="list-style-type: none"> <li>- Invitation to participate in the training program</li> <li>- Online training registration</li> </ul>	WP5 leaders
5.4 A poster and a leaflet	Apr 2021	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Administrative staff</li> <li>- Technical staff</li> </ul>	<ul style="list-style-type: none"> <li>- Project information</li> <li>- Training framework and concept</li> </ul>	Project coordinator
5.4 A short video	Jun 2021	<ul style="list-style-type: none"> <li>- Teaching staff</li> </ul>	<ul style="list-style-type: none"> <li>- Project information</li> </ul>	WP5 team



<i>Dissemination</i>	<i>Tentative Date</i>	<i>Audience</i>	<i>Message</i>	<i>Source/ Responsibility</i>
presentation				
5.4 An e-newsletter	Aug 2021	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Administrative staff</li> <li>- Technical staff</li> </ul>	<ul style="list-style-type: none"> <li>- Project information</li> <li>- Partner information</li> <li>- Technical knowledge related to the project</li> </ul>	WP5 team
5.4 A leaflet with capacity assessment result	Aug 2021	<ul style="list-style-type: none"> <li>- Non-university sectors</li> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Non-university capacity assessment result</li> </ul>	WP1
5.7 A dissemination event	Mar 2021	<ul style="list-style-type: none"> <li>- Non-university sectors</li> <li>- Teaching staff</li> </ul>	<ul style="list-style-type: none"> <li>- Project information and significance of the project</li> </ul>	WP5 team
<b>Middle stage: informing the progress of the project: project activities and events</b>				
5.2 The project website	Continuing	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Information about training courses</li> <li>- Execution of Training activities</li> </ul>	WP2, WP3
5.4 A leaflet with training courses information	May 2022	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Information about project activities, training courses, coaching activities</li> </ul>	WP2, WP3
5.4 Two e-newsletters	May 2022 and Oct 2022	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Administrative staff</li> <li>- Technical staff</li> </ul>	<ul style="list-style-type: none"> <li>- Information about WP2 and WP3 activities, training sessions, coaching activities</li> <li>- Short articles regarding project results</li> </ul>	WP5 team
5.4 A video presenting training and coaching activities	Oct 2022	<ul style="list-style-type: none"> <li>- Non-university sectors</li> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Presenting training and coaching activities</li> </ul>	WP5 team
5.5 Publication	The first paper is expected to be submitted to a journal in Apr 2022.	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Dissemination of intermediate results of the project, especially WP1 at this stage.</li> </ul>	All consortium members, precisely WP1 at this stage
5.7 A dissemination events	Oct 2022	<ul style="list-style-type: none"> <li>- Non-university sectors</li> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Sharing findings from the project, experience and good practices as well as upcoming events</li> </ul>	WP5 team, all consortium members are to be presenting at this event
<b>Final stage: informing the project results and planning for sustainability of the project</b>				
5.2 The project website	Continuing	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> </ul>	<ul style="list-style-type: none"> <li>- Information about training activities</li> </ul>	WP2, WP3

<i>Dissemination</i>	<i>Tentative Date</i>	<i>Audience</i>	<i>Message</i>	<i>Source/ Responsibility</i>
			- Results from training and coaching activities	
5.4 A leaflet with training courses and techniques	March 2023	- Teaching staff	- Results from training and coaching activities and good practices	WP2, WP3
5.4 Two e-newsletters	Mar 2023 and Jul 2023	- Teaching staff - Trainees - Administrative staff - Technical staff	- Information about WP2 and WP3 activities, training sessions, coaching activities - short articles regarding project results and setting up a network for sustainability	WP5 team
5.4 A leaflet and call for papers for the final conference	Planned and designed in March 2023	- Teaching staff - Trainees - Administrative staff - Technical staff - Industry - Consortiums of network	- Information about the planned final conference - Call for papers for presenting at the final conference	WP5 team
5.4 A dissemination booklet	Planned in Jul 2023	- Teaching staff - Trainees - Administrative staff - Technical staff - Industry - Consortiums of network	- Information about the project results from every work package and other conference papers	All the consortium members
5.5 Publications	Continuing	- Teaching staff - Trainees	- Dissemination of intermediate results of the project, WP2, WP3, good practices	All consortium members
5.6 Setting up training network among the members	Apr 2023	- Teaching staff - Trainees - Industry - Consortiums of network	- Ensure sustainability of the project	WP2, WP3, WP5
5.7 Two dissemination events	Jan 2023 Jul 2023 (or concurrent with the final conference)	- Non-university sectors - Teaching staff - Trainees	- Sharing findings from the project, experience and good practices	WP5 team, all consortium members are to be presenting at this event

Dissemination	Tentative Date	Audience	Message	Source/ Responsibility
5.8 A final dissemination-sustainability conference	Sep 2023	<ul style="list-style-type: none"> <li>- Teaching staff</li> <li>- Trainees</li> <li>- Administrative staff</li> <li>- Technical staff</li> <li>- Industry</li> <li>- Consortiums of network</li> </ul>	<ul style="list-style-type: none"> <li>- Promote project results</li> <li>- Sharing experiences during the project</li> <li>- Make final conclusion of the project</li> </ul>	AIT and all the consortium members

Table 6. Tentative time plan for dissemination Work Package 5

Dissemination in Year 1	2020 Nov	Dec	2021 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Initial Stage: raising awareness of the project												
5.1 DESP							X					
5.2 Project website				X	X	X	X	X	X	X	X	X
5.3 Inviting non-university sector						X	X	X	X			
5.4 A poster and a leaflet						X						
5.4 A short video presentation								X				
5.4 An e-newsletter										X		
5.4 A leaflet with capacity assessment result										X		
5.7 A dissemination event					X							
Dissemination in Year 2	2021 Nov	Dec	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Middle stage: informing the progress of the project: project activities and events												
5.2 The project website	X	X	X	X	X	X	X	X	X	X	X	X
5.4 A leaflet with training courses information							X					
5.4 Two e-newsletters							X					X
5.4 A video presenting training and coaching activities												X
5.5 Publication						X						X
5.7 A dissemination events												X

Dissemination in Year 3	2022 Nov	Dec	2023 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Final stage: informing the project results and planning for sustainability of the project												
5.2 The project website	X	X	X	X	X	X	X	X	X	X	X	X
5.4 A leaflet with training courses and techniques					X							
5.4 Two e-newsletters					X				X			
5.4 A leaflet and CFP for the final conference					X							
5.4 A dissemination booklet									X	X		
5.5 Publications						X						X
5.6 Setting up training network among the members						X	X	X	X	X	X	X
5.7 Two dissemination events			X						X			
5.8 A final conference									X	X	X	

## 7. Project exploitation

Exploitation is associated with the use of the project's results at different levels, during and after the implementation of the project. It is related with the necessary action that will bring visibility to the project to involve the target groups, stakeholders and transfer the results/ products into their professionals' scope.

Exploitation is mostly related to the idea of convincing the key actors to use the main products and services of the project. Exploitation is closely associated with the sustainability of the project after its conclusion, since exploitation activities should ensure that the results of the project are used by its target groups and possibly are transferred to other contexts (e.g. other countries; other pedagogical areas, other sectors).

A very good opportunity to disseminate the project and its main outcome is the organisation of training courses for Thai trainers as well as for trainees from non-university sector. Also, it is a form of project exploitation. So, a subset of the teaching/learning materials developed under WP2 and WP3 will be planned for the training in the project and be revised to offer in innovative training centres set up in this project. These courses will be offered to different Thai Industrial Engineering professionals including non-university institutions and industry. Through cooperation with the associated partners, these training programmes and courses can open up opportunities for continuous professional development and requalification with regard to the needs of the teaching professionals and labour market. AIT and MU will be responsible for this deliverable with active involvement from other Thai partners.

Exploitation of the project results requires the development of an appropriate marketing strategy to

ensure the project's sustainability. In designing the strategy, the ReCap4.0 addressed and will address the following basic questions:

- What are the project results that can be exploited?
- To which sector do they belong (academic, technology, education, institutions, etc.)?
- Identify target markets, main target groups or end users suitable for the exploitation of project deliverables;
- Which mechanisms and strategies are to be used for each type of project outcome and according to which user needs?
- What is the aim of each partner's individual exploitation plan?
- Which products /project outcomes can be best exploited by the Consortium.

The ReCap4.0 is designed in such a way that produced results can be exploited during the project implementation and lead to its multiplication outside the Consortium even after the project ends. Here are some of them:

- The consortium's exploitation strategy plan;
- The institutional plans of each project partner for exploitation of project results;
- Large number of deliverables especially reports and publications, publicly available on the project website and partners' websites for wider use by both participating partners, associated partners and non-university institutions outside the Consortium. In this way, the project target groups will benefit from project results even after the project ends.
- Since the project webpage will be sustainable, the webpage users (professors, researchers, students, etc.) will use it for generating and developing ideas, and team work on innovative and research projects.
- In order to attract new users not only on national, but also on regional, national and EU level, after the project's end various sustainable mechanisms for raising awareness, dissemination and exploitation of project results will be used and the whole set of activities will be conducted leading to the sustainable impact on these target groups with public access to almost all outputs, info days and participation in similar public events outside the project, through social networks, promotional materials, existing contacts and networks.

The exploitation strategy will be developed during the project. An internal first version will be written towards the end of the second year, when the exploitable results become clearer. A final version will be written and put into action during the third year of the project and will set the guideline for future exploitation beyond the scope of the project.

## 8. Project Sustainability Strategy

The institutional and financial sustainability is a part of the DESP and will be developed after the completion of the WP1, WP3 and WP5:Task5.6 by their package leaders. In principle, the new training and coaching courses will be financed through the sponsored grants. This plan will be presented to the non-university authorities at various Thai non-university institutions with the aim to persuade them to endorse the Industry 4.0 competence training programme and to adopt the new teaching methods for other courses which are not considered directly in this project.

Dissemination of the project result is the responsibility of all project partners not only during the lifetime of the project but also after the project closure to sustain the project impact in the long run.

To ensure sustainability of ReCap4.0 project, the following sustainable outcomes, and strategies to ensure the sustainability include:

- The establishment of an Innovative Teaching and Learning Centre for Thailand sustainability Smart Industry will be a part of sustainability plan in the DESP. It will be a hub for providing training, advice, forum and a channel of communication to support professional development and lifelong learning of the staff of academic institutes at the tertiary education level as well as technical training for industry.
- Continuation of the Industry 4.0 competence development training program: to ensure the continuation of the project, the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry will be established at various locations of Thai partners covering all the regions of Thailand. Also, the endorsement from the non-university sector, and industry will be obtained.
- Continuation of strong partnerships among participating EU and Thai universities as well as benefited non-university sector and industry: this outcome can be achieved by inviting all the participants in the project to be members of the centre and work on collaboration in other projects and activities carried out at the centres.
- Reinforcing of trained capacity: The new training programmes, short courses, and activities to be carried out the training centres will be created to actively reinforce the trained capacity of the project.

## 9. Post-Project Visibility

It is agreed that the first post-project activity will be the document the recommendations registered in the Final Conference, as well as the knowledge related with the implementation of the new training and coaching courses at the training centres. The website will be updated with ReCap4.0 activities, MSIE4.0 courses and the information linked to the implementation of the distance and simulation based-training curricula in Thai partners.

This will enable the development and publication of articles in media to communicate the scope, progress and results concretized by the post-project stage, with new professionals and the general public receiving the impact of ReCap4.0.

This situation will make possible to organize meetings of updating and dissemination activities between Thai partners, non-university institutions, and representatives of regional and international organizations, to report progress activities after the end of the project. The meetings will require the design and publication of documents to illustrate results, goals and new objectives faced in the post project period, depending on the current context.

To evaluate the actions suggested, we will continue considering the performance indicators used during the development of the project

## 10. Deliverables of WP5

The overview of deliverables is presented in Table 7.

*Table 7. Overview of Deliverables*

<i>Task</i>	<i>Delivery name</i>	<i>Method of measurement</i>	<i>Expected results</i>	<i>Type of deliverable</i>	<i>Format</i>	<i>Language</i>	<i>Target Group</i>	<i>Lead partner</i>	<i>Dissemination Level</i>	<i>Month of Completion</i>
5.1	Project Dissemination Exploitation and Sustainability Plan (DESP)	Number of updated versions		Report	Electronic	EN	Teaching Staff	MU	Dept/Faculty Institution Regional National International	M7. Updated when necessary
5.2	Project website	Available No of visitors (represent visibility)	1	Product	Electronic	EN	Teaching staff, students, administrative staff, general public	AIT	Dept/Faculty Institution Local Regional National International	M4 Regularly updated
5.2	Project logo	Available Appropriate visibility of the logo	1	Product	Electronic	-	Teaching staff, students, administrative staff, general public	AIT	Dept/Faculty Institution Regional National International	M2





<i>Task</i>	<i>Delivery name</i>	<i>Method of measurement</i>	<i>Expected results</i>	<i>Type of deliverable</i>	<i>Format</i>	<i>Language</i>	<i>Target Group</i>	<i>Lead partner</i>	<i>Dissemination Level</i>	<i>Month of Completion</i>
5.3	A list of registered trainees from the non-university sector at tertiary education level in Thailand	Available	1	Report	Electronic	EN, Thai	Teaching staff Administrative staff Project members	AIT	Dept/Faculty Institution Regional National	M8
5.4	Project poster	Number of distributed items	All printed items were distributed	Product	Printed	EN, Thai	Teaching staff, Students, Trainees, Administrative staff, Technical staff, Librarians	AIT	Department / Faculty Institution Regional National International	M6
5.4	Project leaflet	Number of distributed items	All printed items were distributed	Product	Printed	EN, Thai	Teaching staff, Students, Trainees, Administrative staff, Technical staff, Librarians	AIT	Department / Faculty Institution Regional National International	M6



<i>Task</i>	<i>Delivery name</i>	<i>Method of measurement</i>	<i>Expected results</i>	<i>Type of deliverable</i>	<i>Format</i>	<i>Language</i>	<i>Target Group</i>	<i>Lead partner</i>	<i>Dissemination Level</i>	<i>Month of Completion</i>
5.4	Booklet for final conference	Number of distributed items	All printed items were distributed	Product	Printed	EN, Thai	Teaching staff, Students, Trainees, Administrative staff, Technical staff, Librarians	MU	Department / Faculty Institution Regional National International	M35
5.4	Newsletters	Number of issues	5	Product	Electronic	EN	Teaching staff, Trainees, Administrative staff, Technical staff, Professionals, other universities	MU and all WP5 members	Department / Faculty Institution Regional National International	Every 6 Months
5.5	Publications in professional journals, newspapers, magazines and brochures, social media	Number of publications with Acknowledgement of Erasmus+	16	Product	Electronic	EN, or Thai	Teaching staff, Students, Trainees	AIT and all partners	Institution Local Regional National International	Every 6 Months after M18

<i>Task</i>	<i>Delivery name</i>	<i>Method of measurement</i>	<i>Expected results</i>	<i>Type of deliverable</i>	<i>Format</i>	<i>Language</i>	<i>Target Group</i>	<i>Lead partner</i>	<i>Dissemination Level</i>	<i>Month of Completion</i>
5.5	Social media page	Available	1	Product	Electronic	EN	Teaching staff, Students	AIT and all partners	Institution Local Regional National International	M4 Regularly updated
5.6	A list of the members of the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry	Number of members	80	Report	Electronic	EN, Thai	Teaching staff, Students, Trainees, Technical staff, Industry	MU, AIT and all Thai partners	Department / Faculty Institution Regional National International	M36
5.7	Dissemination events with relevant stakeholders	Number of events	4	Event	-	EN, Thai	Teaching Staff Students Trainees Technical Staff Industry representatives, Professionals	Thai partners	Institution National International	M4, M24 and After completion of key activities

<i>Task</i>	<i>Delivery name</i>	<i>Method of measurement</i>	<i>Expected results</i>	<i>Type of deliverable</i>	<i>Format</i>	<i>Language</i>	<i>Target Group</i>	<i>Lead partner</i>	<i>Dissemination Level</i>	<i>Month of Completion</i>
5.8	A dissemination-sustainability conference	Organises as a conference.	1	Event	-	EN, Thai	Teaching staff, administrative staff, policy makers, businesses and relevant authorities in the country	AIT	Department / Faculty Institution Regional National International	M35

## 11. Monitoring and evaluation

The project has an overall evaluation strategy to ensure the project quality, therefore the monitoring for dissemination is vital, since the impact of those activities contributes to the successful implementation of the project. It is important that this evaluation is carried out on a continuous basis, to ensure:

- An effective impact assessment and update or redefinition of dissemination activities,
- The quality of the dissemination carried out.

The following monitoring and evaluation tools will be set up:

**Statistics on the usage, reach and engagement of the website and the social networks:** AIT will oversee analysing trends, statistics, and the impact of each activity performed on the website and on social networks. This will allow partners to a better understanding of the most appropriate timing, communication style and target audience of each message.

**Monitoring of dissemination events, and other relevant events:** Communication and dissemination activities within this framework will be carefully evaluated to maximize the visibility of the project and to intervene before problems arise. Examples of impact monitoring in this framework are registration sheets, photos taken from events, and presentations.

### 11.1. Evaluation criteria: impact measurement indicators

Impact is one tool used to ensure that the ReCap4.0 project objectives are being accomplished through a selection of tailored activities. To measure the impact and thus conduct the most accurate assessment of the dissemination activities, both quantitative and qualitative indicators should be considered for this action.

Qualitative indicators are slightly more difficult to define than quantitative indicators, but nevertheless equally or more important. A qualitative indicator is an untailored phenomenon as it is people's judgments and perceptions on a given subject, compared to quantitative that are mainly reflected in numbers and statistics. Qualitative indicators that will be utilized are:

- Individual feedback by all partners
- Feedback by participants

Qualitative indicators will be obtained through the implementation of the following tools:

- Evaluation form distributed to participants at dissemination events
- Activities conducted within WP5 regarding quality assurance.

The dissemination-related indicators that will be used are:

- Facts and figures about the project' website (updates, visits, views);
- Media coverage: number of specialist articles, newsletters, etc.;
- Visibility on social networks;
- Availability of dissemination materials
- Links with existing transnational networks and partners;
- Reaction of participants, peers, and other stakeholders using satisfaction questionnaires;

- Number of event attendees (Attendance sheet as the proof)
- Number of potential members of the Teaching and Learning Centre for Thailand Sustainable Smart Industry

## 11.2. Monitoring procedures

All dissemination, exploitation and sustainability activities are to be reported to WP5 leader who will compile documentation of implemented activities and update the Dissemination, Exploitation and Sustainability Plan.

Project partners are responsible for providing the WP5 leader with dissemination, exploitation and sustainability materials.

To facilitate an accurate monitoring and assessment of the dissemination activities, and to understand the impact of the actions carried out, it is necessary for all partners to register the activities that they implement, therefore:

- all partners should prepare their dissemination activities according to the Dissemination, Exploitation and Sustainability Plan;
- all partners should report all dissemination activities, at least every quarter, as part of the WP5 and project's progress reports;
- all partners should save evidence of the activities conducted.
- all the partners should provide the information about the events

By performing regular monitoring of the activities, it is possible to assess if the dissemination plan is being carried out properly and on time. It will also be possible to see which activities had the biggest impact on the stakeholders (both quantitative and qualitative) and to improve communication actions if necessary.

After each reporting period, each partner will also be requested an update list of communication activities. The monitoring is a continuing process that will assess the overall WP5 activities/results, but also evaluate each individual activity and its impact on the project. It is most likely that the Dissemination, Exploitation and Sustainability Plan will be updated according to the results of such evaluations. Based on the half yearly reporting documents received from the partners, MU and AIT will provide recommendations for the future dissemination activities and actions. To facilitate the process of collecting information on dissemination activities, the project website of the ReCap4.0 will be utilized and which will contain all most relevant documents to be shared among partners.

## 11.3. Quality Assessment

The Dissemination Exploitation and Sustainability Plan sets up procedures to control the quality of the deliverables produced within WP5 to ensure the smooth management and effective implementation of the dissemination activities. Thus, the WP Leaders and team members set up the specific quality control procedure as follows:

- For most of the deliverables stated in Table 6, their quality will be assessed internally, firstly by WP5 leaders and then among WP5 members in some deliverables. Before the deliverables will be executed, they must get consensus from all the WP5 members.

Otherwise, the deliverables must be amended.

- For major deliverables which could impact outreach of the project including the Dissemination, Exploitation and Sustainability Plan, and overall view of the project website, they will be firstly assessed by the WP5 team members and then submitted to QCMB for quality approval. For quality assessment of the other deliverables, when they are ready, WP5 team will notify the QCMB to assess them via the project website. Moreover, some deliverables will be assessed by other stakeholders applying the tools generated by the QCMB.

Table 8 summarises the quality assessment for all the deliverables.

*Table 8. Summary of Deliverable Quality Assessment*

Task	Deliverable name	Quality assessment	
		Internal WP5	QCMB
5.1	Project Dissemination Exploitation and Sustainability Plan (DESP)	✓	✓
5.2	Project website		
	- Content to be posted	✓	
	- Website	✓	✓
	Project logo	✓	
5.3	A list of registered trainees from the non-university sector at tertiary education level in Thailand	✓	
5.4	Project poster	✓	
	Project leaflet	✓	
	Booklet for final conference	✓	
	Newsletters		
	- Content to be included	✓	
	- Newsletter	✓	
5.5	Publications in professional journals, newspapers, magazines and brochures, social media	✓	
5.5	Social media page	✓	
5.6	A list of the members of the Innovative Teaching and Learning Centre for Thailand Sustainable Smart Industry	✓	
5.7	Dissemination events with relevant stakeholders	✓	
5.8	A dissemination-sustainability conference	✓	

## 12. Conclusions

The Dissemination, Exploitation and Sustainable Strategy of the ReCap 4.0 project is based mainly on two principles:

- Intensive use of project's dissemination, exploitation materials and communication channels;
- Personal communication and involvement of the partner organisations' staff.

To ensure the maximum impact of DES activities, the project's consortium has decided to focus on a strong presence and involvement in public events and events involving stakeholders and policy-makers. All project partners will contribute to DES activities to deliver a high impact of project results. The whole strategy for DES activities is based on a collaborative effort and involvement from the very start of the project. The activity deliverables should be freely shareable and re-usable as possible to ensure a proper distribution of materials.