**Project Number: 813999**

**Project Acronym: WindMill**

**Project title: Integrating WIreless Communication Engineering and MachIne Learning**

# DISSEMINATION PLAN

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# Executive Summary

The WindMill Dissemination Plan will ensure that the project results and activities are properly communicated and disseminated through relevant channels. This document is prepared within the Dissemination and Outreach Work Package (WP8). It includes all the information needed to facilitate the dissemination and outreach efforts of the WindMill project beneficiaries and partners.

The general dissemination and outreach strategy is described together with specific activities such as the dissemination toolkit, online communication, scientific dissemination and communication activities.

In addition, the timeline and division of tasks between beneficiaries is detailed.

The Dissemination Plan will be regularly reviewed and updated to ensure that its objectives are met. It will be followed by two subsequent deliverables:

- D8.2 Report on dissemination/outreach of the project and plan for final two years (in M24)
- D8.3 Final report on dissemination/outreach of the project (in M48)

# Introduction

The ITN project WindMill will recruit and train 15 Early Stage Researchers (ESRs) within a consortium of leading international research institutes and companies comprising experts in wireless communications (WiC) and machine learning (ML).
Each ESR will be hired by one of the 10 beneficiaries. They will all go on secondments, at another beneficiary premise or at one of the 11 partner organisations.
The consortium consists of:

| Beneficiaries | Short name |
|---|---|
| Aalborg Universitet | AAU |
| EURECOM | EURECOM |
| Centre Tecnològic de Telecomunicacions de Catalunya | CTTC |
| AALTO KORKEAKOULUSAATIO SR | AALTO |
| Università degli Studi di Padova | UNIPD |
| Ericsson AB | EAB |
| Nokia Bell Labs France | NBLF |
| WorldSensing SL | WSE |
| Eidgenössische Technische Hochschule Zürich | ETH Zürich |
| Robert Bosch GMBH | Bosch |
| Partner organisations | Short name |
| Institut National des Sciences Appliquées de Lyon | INSA Lyon |
| Universität Stuttgart | USTUTT |
| Virginia Tech Applied Research Corporation | VT-ARC |
| Cornell University | CU |
| DeepSig Inc. | DeepSig |
| CentraleSupélec | CentraleSupélec |
| Universitat Politècnica de Catalunya | UPC |
| The University of Texas at Austin | UT |
| Telenor ASA | Telenor |
| Intel Deutschland GmbH | Intel |
| Mitsubishi Electric Research Laboratories | MERL |

**Table 1 WindMill consortium members list**

The purpose of the Dissemination Plan is to ensure that the project results and activities are properly communicated and disseminated through relevant channels.

# 1 General dissemination and outreach strategy

## *1.1 Objectives and target audiences*

WindMill's declared mission is to strengthen publicly funded research on ML in WiC. Dissemination and outreach are crucial to achieve this. Target audiences have been identified as follow

- Research Community: WindMill will particularly target the conjunction of ML and wireless communication system engineering as it is in its infancy and still offers considerable room for development until being perceived as a field of research in its own right.
- European Industry: The combination of ML and WiC offers a massive, barely tapped potential, and will likely unleash substantial performance increases, endow networks with distributed intelligence which have important ramifications (onto performance, quality of experience, autonomous operability, self-configuration, self-sustainability, privacy and security) and thus by their very nature offer numerous opportunities for patents and new business models.
- The General Public: it is of particular importance to inform European citizens of the impact of European funding to research and research training. Among the General public, two target audiences have been targeted
    - Attendants to general public events
    - School and student audiences

## *1.2 Main division of tasks and responsibilities*

The ESRs will have a crucial role in the dissemination activities as content providers and sometimes managers. All beneficiaries commit to supervise the activities of their ESRs in this effort, as well as to undertake a number of additional actions with the aim of complementing and enlarging the scope of those conducted by ESRs. The Coordinator, WP Leader and Task Leader will act as managers of selected activities.

X: Management; Y: Content provider

| Task | Project Coordinator | WP Leader | Task Leaders | ESR Supervisors | ESRs |
|---|---|---|---|---|---|
| 2.1 Diss. Toolkit | X, Y | | | | |
| 2.2 Online communication | X | | | | Y |
| Website | X | | | | Y |
| Knowledge Sharing Platform (private section of the website) | X | | X | | Y |
| Public dissemination of content generated in the Knowledge Sharing Platform (KSP/news section) | X | | X | | Y |
| Newsletters | - | - | - | - | - |
| LinkedIn, | X | | | Y | Y |
| Facebook | | | | | X, Y |
| Twitter | X | | | Y | Y |
| YouTube (video clips) | X | | | X, Y | Y |
| 2.3 Scientific dissemination list | | | X | | Y |
| 2.3 Scientific conferences list | | | X | | Y |
| 2.3 Workshops | | | X | Y | X |
| 2.3 Special sessions | | | X | Y | |

| | | | | | |
|---|---|---|---|---|---|
| 2.4 Participation at events and Public engagement mechanisms | | | | X | Y |
| 2.4 Interaction with Industry | | X | | Y | Y |
| 2.5 Press releases | X | | | X, Y | |

**Table 2 WindMill Dissemination division of tasks and responsibilities**

## *1.3 Timeline*

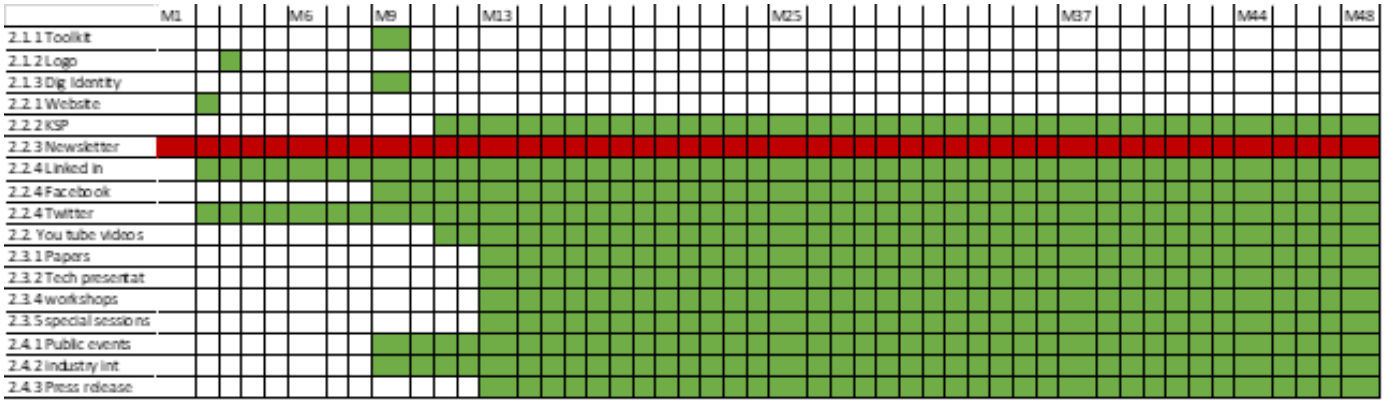


**Figure 1 WindMill Dissemination timeline**

# 2 Specific dissemination and outreach activities

## *2.1 Dissemination toolkit*

Several templates will be created for the project and used for presentations, reports and posters, as well as for meeting and internal documents. This ensemble will be known as the Dissemination Toolkit. This communication material will be made available to the whole consortium so that each partner and all ESRs can use the material for all future project-related communication and dissemination.

This toolkit will constitute the visual identity of the project and will make it recognizable but, more importantly, distinguishable amongst the numerous projects and ITNs in existence. This will allow us to set apart the events and results from WindMill. More importantly, the aim is to make people familiar with our project, so they instantly know what we offer and learn more about our results and value. The key requirements for this purpose are four-fold:

**Differentiation**. Only for the H2020-MSCA-ITN-2018 call, 123 ITN projects were funded, representing more than 1600 PhD students. In this highly competitive domain, our identity has a clear differentiation ambition in order to make us noticed and to make an instantaneous impression.

**Relevance**. People need to understand immediately what we can offer them in order to spark their interest in our research.

**Coherence**. To assure credibility of the global project, each ESR needs to be coherent and homogeneous with the other ESRs of the WindMill project. The quality of material produced by the project will add up towards a global recognition of the common outcomes.

**Esteem**. Being differentiable, relevant and coherent will result in our visual identity and the resulting material to be valued by our audience.

In order to create a strong visual identity and make it readily available to all the ESR, the following elements will be produced:

### 2.1.1 Templates

For presentations, reports, posters, meetings and internal documents

- Word templates
- Deliverable templates
- PowerPoint templates for presentations
- PowerPoint template for posters

### 2.1.2 Logo

A logo was produced during M3. A number of options were presented to the consortium and the majority of the partners selected the current Windmill logo. The selected logo is the following:


**Figure 2 WindMill logo**

The structure that is visible above the word “windmill” stands for two things: on the one hand, it represents the letters ‘W’ and ‘M’ that are contained in the word “windmill”, while on the other hand, it also represents two neural networks.

It aims at becoming the instantaneously recognizable sign of identity of the project.

### 2.1.3 Digital identity

A digital identity will also be produced. This includes the already existing logo and a number of images that represent some of the key WindMill features. This material will be used for the website but also for any other document, presentation or communication means that will be produced within the project.

## *2.2 Online communication of the project results and activities*

### 2.2.1 Website

The website was set up at the very beginning of the project, during M1 and M2. The first motivation for the website is to provide a central reference point for the recruitment process. The ESR projects are presented and described as well as the global WindMill project. The link to the website was included on all the online publications of the individual ESR to increase the visibility of the other positions as well.

During the remainder of the project, the website will mainly be used to:

1) Briefly describe the overall challenge, goals and their importance,
2) Introduce the beneficiaries and partner organisations,
3) Present the individual ESRs,
4) Provide information on the events and training,
5) Present news of the project (by linking to the Knowledge Sharing Platform)

### 2.2.2 Knowledge Sharing Platform

The Knowledge Sharing Platform will be a website of its own or a subsection of the WindMill website. While the beneficiaries will establish it, the ESRs have the responsibility to feed it with content. It will include:

- A private area of the website that will serve as an incubator for various contents. It will be the instrument of choice of the ESRs to communicate their results and inform each other, and the project beneficiaries. The ESRs will be requested to feed it with content at least once a week. In practice, with 15 students, this represent one entry every 4 months for each student.
- A public area (blog or equivalent) allowing for public dissemination of content generated in the KSP: In this section, good content from the private area will be made public, together with reference to the project activities in the different social media and publications areas.

### 2.2.3 Biannual project newsletter

The project had initially planned to release a bi-annual newsletter. After internal discussion in the consortium, and based on experience from past projects, it was not deemed as a very efficient use of resources. It was decided to focus efforts on online communication (see details above) and on linking the project with relevant networks and projects.

### 2.2.4 Social media accounts

Other social accounts have been created and will be used to manage the community through regular posts. Four of the mainstream tools have been selected.

- **LinkedIn**: this tool will be used for the recruitment efforts and for the visibility of the ESRs profile, in order to improve their career opportunities after the project. It will also be used to connect with related project (secondary objective)
- **Facebook**: this tool will be used by the ESRs for their internal communication and private use, if they deem it relevant
- **Twitter**: this tool will be mainly used to connect with related projects and increase the visibility of the project. Relevant activities taking place in the project will be disseminated through this channel
- **YouTube**: this tool will be used to disseminate the project videos. The account will be created when the first videos are available (after the Kick-Off meeting). The videos will also be released through the project website. The content could be of different types (promotional, work phases, demos, general dissemination…)

In addition, **Medium** is also being considered as a relevant platform. It will be discussed with the ESRs when they start, and an account will be created after the kick-off event if deemed relevant.

## *2.3 Scientific dissemination*

All consortium members are expected to identify relevant events, regardless of whether these are internally or externally organised (conferences, workshops, seminars, tutorial sessions, special sessions co-located at conferences, etc.) as well as calls for publications (conference papers, journals, magazines, monographs, books). They are expected to share information within the consortium about any such announcement they are aware of, ideally via the internal mailing list.

In addition, the consortium members are explicitly encouraged to propose special issues of journals on topics related to Machine Learning for Wireless Communications or some more narrowly framed topic, in publications (journals, books) they deem appropriate and useful for bolstering the visibility of the WindMill project.

Every institution is responsible for ensuring the regular dissemination, in concordance with the guidelines laid out in Section 2.2, of scientific results produced by its ESRs. These results should be communicated in summarized form, highlighting the main results. Depending on the nature of these results (article, tutorial, datasets, open source code, etc.), the most suitable format will be identified, and the results will be submitted to the Knowledge Sharing Platform. Additionally, the task leader will periodically revise the list of publications on the Knowledge Sharing Platform. The preliminary choice to access the project publication list is the WindMill project webpage. The list shall also serve as a facilitator to access the full text of the scientific publication, for instance, by providing the direct link to their respective open access repository.

### 2.3.1 Scientific publications

Scientific publications will target high-impact journals and technical magazines. A preliminary list of targeted journals can be found below. An updated list of relevant publication venues will be kept up to date.

| **Journals primarily focused on WiC, communications engineering and related fields (e.g. signal processing)** |
|---|
| IEEE Transactions on Information Theory; IEEE Transactions on Communications; IEEE Transactions on Wireless Communications; IEEE Wireless Communication Letters; IEEE Communications Letters; IEEE Journal on Selected Areas in Communications; IEEE Transactions on Industrial Informatics; IEEE/ACM Trans. on Networking; IEEE Transactions on Signal Processing, IEEE Signal Processing Letters. |
| **Journals primarily focused on ML** |
| IEEE Transactions on Cognitive Communications and Networking; Journal of Machine Learning Research; Springer Machine Learning Journal; IEEE Transactions on Neural Networks; IEEE Transactions on Neural Networks and Learning Systems; Elsevier Neural Networks (supports Open Access). |
| **High-level journals and magazines, targeting wider audience** |
| IEEE Communications Magazine; IEEE Communications Surveys and Tutorials; IEEE Signal Processing Magazine; IEEE Vehicular Technology Magazine. |

**Table 3: Targeted journals (from Annex 1 of the grant Agreement, p.133)**

### 2.3.2 Technical presentations

Technical presentations will take place at international conferences – fairs, exhibits, lectures and seminars, international schools and training initiatives. A preliminary list of targeted conferences and workshops can be found below. The list of relevant venues will be regularly updated.

| Targeted conferences and workshops (combined list) |
| --- |
| Int'l. Conf. on Machine Learning (ICML); Int'l. Conf. on Machine Learning and Applications (ICMLA); Conf. on Learning Theory (COLT); Conf. on Neural Information Processing Systems (NIPS); Algorithmic Learning Theory (ALT); Conf. on Uncertainty in Artificial Intelligence (UAI); Int'l. Conf. on Artificial Intelligence and Statistics (AISTATS); Int'l. Joint Conf. on Neural Networks (IJCNN); IEEE Int'l. Symp. on Computers and Communications (ISCC); IEEE Int'l. Conf. on Communications (ICC); IEEE Global Communications Conf. (GLOBECOM); IEEE Int'l. Symp. on Information Theory (ISIT); IEEE Communications Theory Workshop (CTW); IEEE Information Theory Workshop (ITW); IEEE Wireless Communications and Networking Conf. (WCNC); IEEE Int'l. Workshop on Signal Processing Advances in Wireless Communications (SPAWC); IEEE Int'l. Conf. on Acoustic, Speech, and Signal Processing (ICASSP); Allerton Conf. on Communication Control and Computing; IEEE Vehicular Technology Conf. (VTC); IEEE Int'l. Symp. on Personal, Indoor and Mobile Radio Communications (PIMRC); Int'l. Conf. on Computing, Networking and Communications (ICNC). |

**Table 3: Targeted conferences and workshops (from Annex 1 of the grant Agreement, p.133)**

### 2.3.3 Organisation of workshops and special sessions

WindMill will organize two workshops co-located with important IEEE conferences that have open calls for workshops. One workshop will be organized at a major WiC conference (e.g., IEEE International Conference on Communications (ICC)) and another one at a major ML conference (e.g., International Conference on Machine Learning (ICML)). Each ESR will be requested to attend at least one of the workshops and contribute at least one paper submission. In addition, ESRs and supervisors will be encouraged to propose panel discussions and special sessions focusing on Wireless Communications at Machine Learning venues to increase the field (and the project) visibility. Joint publications among the ESRs will be highly appreciated.

The project will encourage collaboration with other international initiatives to broaden dissemination reach, such as the IEEE Machine Learning for Communications Emerging Technologies Initiative, already supported by members of the consortium.

## *2.4 Other communication and outreach activities*

### 2.4.1 Communication of the project results at relevant events and public engagement mechanisms

A preliminary list of events where WindMill beneficiaries (the ESRs, with the support of their supervisors) are planning to be represented can be found below.

- Night of researchers (UNIPD), on Sep. 2020
- Italian Networking Workshop (UNIPD), on January, 2021 and 2022
- PhD summer school in Information Engineering (UNIPD), July 2021, 2023
- Science week (CTTC)
- FXDays (NBLF)
- Fête de la science (EURECOM)
- Research Open Days (EAB)
- Research Day (AALTO)
- Regular orientation and dissemination events for high schools
- WindMill open days

In addition, the beneficiaries will communicate about the project whenever they participate in general public events such as open days, high school events, job fairs, alumni days.

### 2.4.2 Interaction with the European industry

Interaction with the European industry will mainly occur through the attendance at relevant industry-oriented congresses. WindMill representatives, both senior scientists and ESRs, will be present at the Mobile World Congress (MWC) in Barcelona and will present the project to stakeholders. MWC generally takes place in Barcelona between the end of February and the beginning of March. Other relevant industrial events will also be attended. For instance, Worldsensing has already committed to exhibiting at the Smart City Expo World Congress in 2019 and an ESR will have the chance to attend and present the project. Worldsensing expects to exhibit in the following years and updates on the results will be presented. IoT World Congress is another such event. Other potential events to be attended include CES, CCIC, NIPS and the World Forum Cybersecurity.

## *2.5 Press releases of the project activities and results*

All the beneficiaries have well established press offices and communication structures for promotion and dissemination at both local and global scales. The project will use these available structures in order to establish effective communication channels at both global and regional levels. This will include quarterly press releases of the project results, after the ESRs start, targeting local newspapers and TV/Radio stations and explaining how the results of the project become relevant to the ordinary European citizen. Priority will be given to media segments and spaces that are specifically oriented towards science and technology, where awareness of the Marie Skłodowska-Curie programme can be more effectively promoted.

# Conclusions and Outlook

This document is the Dissemination Plan for the WindMill project. It will be used to coordinate the project dissemination and outreach effort. A plan for the final two years of the project will be submitted in Month 24 (December 2020) as part of D8.2 Report on dissemination/outreach of the project. A final report on Dissemination/outreach in Month 48 (D8.3) will conclude the project.

This deliverable can be read in conjunction with D7.2 and D7.1, which are due in June 2019 (Month 6 of the project).

- Details on the use of data in the project, including the project efforts to make the data FAIR (findable, accessible, interoperable and re-usable), are provided in D7.1 Data Management Plan.
- Details on the project internal communication (including internal messaging and file sharing programs) are provided in D7.2 Quality and Knowledge Management Plan.