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# **Executive Summary**

This deliverable presents the planned dissemination strategy and activities of GenerIoT. First the overall dissemination strategy and goals in accordance with the different phases of the project are presented. Afterwards various dissemination channels are listed. The different channels are mutually supportive, so we have tried to group them according to their nature. Because the different partners have different goals with the dissemination, the overall dissemination goals are considered from two points of view: common project-wide dissemination and partner-specific dissemination. The deliverable is completed by a concrete list of dissemination activities in the first dissemination phase.

# **Dissemination Strategy and Activities**

## I Dissemination strategy

The following section presents the overall dissemination strategy, by highlighting the goals of the dissemination in the different phases of GenerIoT. The project is organized in various phases supported by different milestones.

| Q01     | Q02                | Q03 | Q04    | Q05 | Q06 | Q07    | Q08      | Q09 | Q10      | Q11     | Q12 |     |
|---------|--------------------|-----|--------|-----|-----|--------|----------|-----|----------|---------|-----|-----|
| Use cas | ses                | -   | -      |     |     | -      |          |     |          | Evaluat | ion |     |
|         | Require<br>& Metho |     | Design |     |     | Implem | entation |     | Integrat | ion     |     |     |
|         |                    |     | MS1    |     |     | MS2    |          |     | MS3      |         |     | MS4 |

MS1 is reached when the use cases are analyzed and requirements on the methodology are specified. With MS2, the technical concepts are specified. Selected feasibility studies are implemented, and the overall implementation is ready for evaluation at MS3. MS4 marks the project's end with a completed evaluation. The dissemination is planned in accordance with these phases.

| Q01       | Q02 | Q03   | Q04      | Q05     | Q06     | Q07 | Q08 | Q09   | Q10       | Q11 | Q12 |
|-----------|-----|-------|----------|---------|---------|-----|-----|-------|-----------|-----|-----|
| Attention |     | Metho | dology & | Concept | Solutio | n   |     | Demor | nstration |     |     |

In the first project phase, the focus of the dissemination was on creating awareness and user interest in the proposed solution of GenerIoT. In the current phase, the GenerIoT methodology is specified, and the dissemination focuses on making the basic **Methodology & Concept** known to a broad audience as well as collecting further application areas or stakeholder needs from outside of the consortia. At the beginning of this stage, the focus is on expert-level dissemination to reach experts of focused dissemination target topics (e.g. the multi-project RISC-V Firmware Workshop including experts from multiple large consortia). The most important dissemination phases start in the **Solution** phase when dedicated GenerIoT solutions are presented and discussed. This is the phase where the later user basis of the GenerIoT methodology and tools is created. The following **Demonstration** phase supports these goals by demonstrating the previously presented solutions.

#### I.1 Dissemination channels

The following section highlights various dissemination channels that could be utilized within the project. This is the second version of the list, which can still be updated over the period of the project. To get a better understanding the different channels are grouped by their nature.

#### Asynchronous channel – Internet presence

The most important dissemination channel is certainly the internet. It has an extensive reach and helps to make potential users aware of the GenerloT methodology. The formats that can be used for online dissemination are manifold: They range from general project information and status updates on project-related websites over scientific and industrial publications, which present in-detail aspects of the GenerloT methodology to audio-visual media, such as tutorials to ease the application of the GenerloT tools. Another very important dissemination channel is open-source releases. They provide users with an actual tool chain to apply parts of the GenerloT methodology.

| Channel ID | Description                                     | Example   |
|------------|---|---|
| D.Ac.WS    | Public websites                                 | edacentrum.de/generiot  |
| D.Ac.PR    | Press releases                                  | pressebox.at  |
| D.Ac.NL    | Newsletter, leaflet                             | ITEA newsletter   |
| D.Ac.SM    | Social media posts                              | LinkedIn, Twitter, Facebook   |
| D.Ac.IP    | Industrial publications<br>Product announcement | Article, Whitepaper on partner<br>websites; Trade journals like<br>Elektronik Praxis, Markt und<br>Technik, e&i Elektrotechnik<br>und Informationstechnik |
| D.Ac.SP    | Scientific publications                         | IEEE, ACM publications;<br>Journals like MDPI Sensors,<br>MDPI Electronics  |
| D.Ac.AV    | Audiovisual media                               | Youtube   |
| D.Ac.OS    | Open source releases                            | GitHub  |
| D.Ac.TH    | Bachelor, Master, doctoral thesis               | Thesis at a university  |

#### Synchronous channel – User events

An important and very valued dissemination channel are meetings with potential users of the GenerIoT approach. Besides a close interaction with the users, that enables the presentation of user-relevant parts of the GenerIoT tooling ecosystem, it also enables direct feedback, which greatly helps to develop a relevant toolchain. The table below lists a collection of various meeting options. It should be noted that both virtual as well as physical meetings are considered, and no further separation is made within the strategy planning. Another aspect that is not separated during strategy planning is the accessibility of the meetings. Meetings can be both public and partner internal. Besides traditional external customers, e.g., tool users, potential GenerIoT users are also located within the partner companies, especially if the GenerIoT methodology should be applied internally to improve current IoT development. During planning, no further separation between external and internal events is made. This results in the following list of dissemination channels for user events.

| Channel ID | Description           | Example                               |
|------------|-----------------------|---------------------------------------|
| D.Sc.SC    | Scientific conference | DATE, DAC, RISC-V Summit, edaWorkshop |
| D.Sc.IF    | Industrial fairs      | Embedded World, HMI                   |

| D.Sc.TR | Workshop<br>Hands-on<br>Training                   | Tool tutorials                                    |
|---------|--|---|
| D.Sc.CP | Customer presentation<br>Demonstrator presentation | Trade fairs                                       |
| D.Sc.FE | Events of funding authorities/organizations        | ITEA PO days, FFG software<br>days Vienna         |
| D.Sc.LE | Lectures   | At universities but also from training activities |
| D.Sc.OE | Other events                                       | Events of national and ITEA funding authorities   |

#### Hybrid channels - Standardization

Another dissemination channel that could be considered is the presentation of the envisioned GenerIoT methodology in standardization bodies. This is not only a one-time event; instead, it is a very long process, most likely outlasting the project runtime. However, even the initial presentation, and discussion with the standardization bodies can result in important input/hints. Because the coordination with standardization bodies ranges from committing initial ideas, to presenting/defending your ideas in person, this channel is tagged as hybrid.

| Channel ID | Description              | Example |
|------------|--------------------------|---------|
| D.Hc.SA    | Standardization activity | OMG     |

## I.2 Dissemination goals

In this section potential goals for the dissemination are discussed. Because the different partners have different goals with the dissemination, the overall dissemination channels are considered from two points of view: common project-wide dissemination and partner-specific dissemination.

#### Project-wide dissemination strategy

The project-wide dissemination strategy focuses on the presentation of the project as a whole. The overall goal is to raise attention for the project. Therefore, the activity covers the general project presentation as well as aggregating the partner contributions (cf. partner-specific dissemination).

The central element of both the project-wide as well as partner-specific dissemination is the project website (Activity 1, D.Ac.WS). News about the project, as well as partner dissemination, will be gathered on the site. Especially an overview of published asynchronous items, such as (scientific) publications, will be given here. Besides the website, different channels will be applied to publish general information about the project. Examples are social media posts when essential events, such as the general assembly or milestone, happened (D.Ac.WS, D.Ac.NL, D.Ac.SM). Other project wide presentations are planned (D.Sc.FE), e.g., for the ITEA PO days.

## Partner-specific dissemination strategy

A major part of dissemination will be driven by each partner, especially in the phases Methodology & Concept, Solution, and Demonstration. In the following, the focus points of both the research partner and industrial partner will be discussed. It should be noted that a clear separation of the dissemination activities cannot be made; this is only an estimate of the focus of each group. For example, industry partners also strive for scientific publications and the supervision of theses, but in general, research partners have a higher interest in these channels.

The **research partner** will focus mainly on scientific publications (D.Ac.SP, D.Sc.SC). By publishing the GenerloT results in the research community, the project and the partner gain visibility. Another benefit is that the community reviews the published as well as submitted

work. In this way, the relevance and acceptance by the research community can be ensured. Besides the external scientific publications, the research partners utilize the state-of-the-art research as an outcome of GenerIoT to support their lectures (D.Sc.FE) with practical, industry-relevant examples. This ensures that the lecture is lively and relevant to practice as well as students can get familiar with the envisioned GenerIoT methodology. This supports another dissemination channel, mainly associated with the research partners, that is the supervision of theses, such as bachelor, master or doctoral theses as well as student jobs (D.Ac.TH). This teaches students the GenerIoT methodology and transfers it indirectly to future, potential users in industry. Another aspect often driven by research partners is the open-source publication (D.Ac.OS) of the tools developed. In the context of GenerIoT it is planned to publish essential parts of the developed tools.

The **industrial partners** can be separated into two groups based on their targeted user group. First, the partners that would like to apply the GenerIoT methodology for their own development. They will focus mainly on internal dissemination, to establish the methodology in the company. The second group will enhance the methodology and prototypical tools during the project and prepare integration into their product after the project. External customers will afterwards be targeted to try out and apply the methods and tools developed. Both will mainly focus on Industrial Publications (D.Ac.IP), Workshop/Hands-on/Training (D.Sc.TR) and especially customer/demonstrator presentations (D.Sc.CP). These dissemination channels enable the partners to raise interest among future users and demonstrate the benefits of the GenerIoT methodology. The industry partners looking for external customers also use public industry fairs (D.Sc.IF) to reach a broader user group. Another aspect that is more in the focus of industry partners than of the research partners, is the usage of their own internal appearance to inform colleagues about ongoing research and results (D.Ac.WS, D.Ac.PR, D.Ac.NL, D.Ac.SM).

As mentioned above, this is only a general allocation of typical dissemination channels to partners; the reality will be much more mixed-up.

# II Activities of Phase I (project start-30.09.2023)

This section gives an overview of concrete activities planned or even carried out during the initial project phase.

| Activity ID | Description   | Date            | Туре               | Responsible<br>Partner |
|-------------|---|-----------------|--------------------|------------------------|
| Activity 1  | Project Website https://www.edacentrum.de/generiot  | 01.12.22        | D.Ac.WS            | Consortium             |
| Activity 2  | ITEA4 Website https://itea4.org/project/generiot.html   | 01.12.22        | D.Ac.WS            | Consortium             |
| Activity 3  | Project leaflet of German project executing agency<br>https://www.softwaresysteme.dlr-pt.de/de/itea.php<br>https://www.softwaresysteme.dlr-<br>pt.de/media/content/01IS22084_Projektblatt_GenerIoT.pdf  | 01.12.22        | D.Ac.NL            | Consortium             |
| Activity 4  | Partner project side<br>https://www.imd.uni-<br>rostock.de/forschung/projekte/forschungsprojekte/generiot-bmbf/   | 01.12.22        | D.Ac.WS            | URO                    |
| Activity 5  | Article on partner website<br>https://www.granlund.fi/uutinen/itea4-tutkimushankkeessa-<br>ideoidaan-iot-mittareita-tuulivoimaloiden-yllapitoon/  | 02.03.23        | D.Ac.IP            | GRA                    |
| Activity 6  | Wind Finland 2023, Oulu, Finland.<br>https://www.windfinland.fi/wind-finland-oulu-2023/   | 02.03.23        | D.Sc.IF            | GRA                    |
| Activity 7  | Workshop, Sisäilmastoseminaari 2023, Helsinki, Finland. Vesa<br>Vihanninjoki, Jatkuvatoimisten ilmanlaatumittausten TVOC-<br>viitearvojen taustoittaminen ja<br>käyttökelpoisuuden arviointi (in Finnish).<br>https://www.sisailmayhdistys.fi/Tapahtumat/Sisailmastoseminaari<br>it/Sisailmastoseminaari-2023 | 12.03.23        | D.Sc.IF            | GRA                    |
| Activity 8  | Wind Finland Offshore 2023, Helsinki.<br>https://www.windfinland.fi/wind-finland-offshore-2023/   | 21<br>22.03.23  | D.Sc.IF            | GRA                    |
| Activity 9  | Partner project side<br>https://loopshore.com/itea-generiot-hanke-on-kaynnissa/   | 27.03.23        | D.Ac.WS            | LOOP                   |
| Activity 10 | Regulatory workshop related to Reserves and Balancing Power<br>markets. GenerIoT project was introduced and requirements<br>validated with national agency of Transmission System Operator<br>(Fingrid).  | 31.04.23        | D.Sc.CP            | TIETO                  |
| Activity 5  | Vaasa Energy Week 2023, Vaasa, Finland.<br>https://www.energyweek.fi/   | 04.05.23        | D.Sc.IF            | GRA/LOOP               |
| Activity 12 | Master's Thesis, Vesa Vihanninjoki, Real-Time Indoor<br>Environment Quality Assessment of Sports Facilities.<br>http://urn.fi/URN:NBN:fi:aalto-202306183990   | 11.05.23        | D.Ac.TH            | GRA                    |
| Activity 13 | Twitter post on the second general assembly<br>https://twitter.com/Tietoevry/status/1671512153138896900   | 21.06.23        | D.Ac.SM            | TIETO                  |
| Activity 14 | LinkedIn Post<br>https://lb.linkedin.com/company/edacentrum-gmbh?trk=similar-<br>companies_org_title  | 21.06.23        | D.Ac.SM            | edacentrum             |
| Activity 15 | TUM Industry Day   https://wiki.tum.de/display/tueisecevents/CoC+Industry+Day+20   23?desktop=true&macroName=confiform-entry-register   | 21.07.20<br>23  | D.Sc.FE            | TUM                    |
| Activity 16 | State-of-the-Art Report, Kanwar Zulfiqar, Esko Sistonen,<br>Structural Health Monitoring of Wind Turbines, Confidential.  | 1.9.2023        | D.Ac.IP            | GRA                    |
| Activity 17 | ITEA PO days  | 12-<br>13.09.23 | D.Sc.FE            | Consortium             |
| Activity 18 | The German-Finnish Chamber of Commerce interviewed Markus Jakobsson from Unikie about cybersecurity. Project and project activities were presented.   | 19.9.202<br>3   | D.Ac.WS<br>D.Ac.SM | UNI                    |

# III Activities of Phase II (01.10.2023-30.06.2024)

This section gives an overview of concrete activities planned or carried out during the second project phase.

| Activity ID | Description   | Date                               | Туре                     | Responsible<br>Partner         |
|-------------|---|------------------------------------|--------------------------|--------------------------------|
| Activity 19 | RISC-V Firmware (RVF) Multi-Project Workshop in Tampere,<br>Finland. <u>https://www.edacentrum.de/rvf</u>   | 2<br>4.10.202<br>3                 | D.Sc.TR                  | TAU, FZI,<br>TUM, IFX,<br>SSCE |
| Activity 20 | Contribution to Wind Finland 2023, Kaapelitehdas, Helsinki.<br>https://www.windfinland.fi/wind-finland-2023/  | 4.10.202<br>3                      | D.Sc.TR                  | GRA                            |
| Activity 21 | Regulatory workshop related to Reserves and Balancing Power markets. 2nd round of GenerloT requirements validated with national agency of Transmission System Operator (Fingrid).   | 31.10.20<br>23                     | D.Sc.CP                  | TIETO/STJ                      |
| Activity 22 | Presentation of the project at the productronica 2023 in Munich, Germany: https://productronica.com/en  | 14 –<br>17.11.23                   | D.Sc.IF                  | BEE                            |
| Activity 23 | Youtube Video about Minimal Test and Simulation Demonstrator  | Planned<br>11-12.23                | D.Ac.AV                  | EMO                            |
| Activity 24 | We will present the project on our booth at the Embedded<br>Software Engineering Congress (ESE), Sindelfingen, https://ese-<br>kongress.de  | Planned<br>Dec<br>2023             | D.Sc.IF                  | RAZ                            |
| Activity 25 | Review article analyzing DevOps and model-based methods for<br>IoT, work in progress to be completed 2023   | Planned<br>Jan<br>2024             | D.Ac.SP                  | TAU                            |
| Activity 26 | Presentation of GenerIoT-Methodology at FZI Open House  | Planned<br>08.02.20<br>24          | D.Sc.CP                  | FZI                            |
| Activity 27 | Paper at MBMV Workshop on Methods and Description<br>Languages for Modeling and Verification of Circuits and<br>Systems, Kaiserslautern.  | 14<br>15.2.202<br>4                | D.Sc.SC                  | IFX and others                 |
| Activity 28 | We will present the project on our booth at the embedded world 2024, Nuremburg, https://www.embedded-world.de   | Planned<br>9 - 11<br>April<br>2024 | D.Sc.IF                  | RAZ                            |
| Activity 29 | Contribution to RISC-V Summit 2024 in Munich  | June<br>2024                       | D.Sc.SC                  | IFX and others                 |
| Activity 30 | Multi-project RISC-V Firmware Workshop (Follow-Up activity of<br>highly successful workshop), location to be defined  | Septem<br>ber/Octo<br>ber 2024     | D.Sc.TR                  | FZI, TUM,<br>IFX, TAU,<br>SSCE |
| Activity 31 | A report article or Master's thesis and/or Bachelor's thesis on researching the effects of utilizing Web Assembly runtimes on resource-constrained IoT devices.   | Planned 2024?                      | D.Ac.SP<br>Or<br>D.Ac.TH | TAU                            |
| Activity 32 | Master's Thesis, Kanwar Zulfiqar related to GRA-UC-1 Structural Health Monitoring (SHM) for wind power stations.  | Planned                            | D.Ac.TH                  | GRA                            |
| Activity 33 | Journal Article about VP-Framework  | Planned                            | D.Ac.SP                  | URO                            |
| Activity 34 | Publication of a scientific paper related to flexible software performance simulation generation  | Planned                            | D.Sc.SC<br>or<br>D.Ac.SP | TUM                            |
| Activity 35 | Advertisement for student research projects with regard to the generation of IoT sensor systems.  | Planned                            | D.Ac.TH                  | FZI                            |
| Activity 36 | pressebox.at - Description of GenerIoT project including topics like technical innovation, consortium and duration  | Planned                            | D.Sc.PR                  | SSCE                           |
| Activity 37 | Presentations with Minimal Test and Simulation Demonstrator<br>including Requirements Engineering for different Companies:<br>BMW, Liebherr, Sparx Systems, Ancud, Shanghai Shibei,<br>Physical. Instrumente, Dolphin, ST Engineering, Bosch<br>Syntegon, Push4Impact, Infoteam |                                    | D.Sc.CP                  | EMO                            |