Artificial intelligence, Data and Robotics ecosystem

https://adra-e.eu/

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[1] **PU:** Public**; CO:** Confidential, only for members of the consortium (including the Commission Services)
[2] **R**: Report, **DEC:** Websites, patent filling, videos; **DEM:** Demonstrator, pilot, prototype; **OTHER:** Software Tools
[3] **PU:** Public**; CO:** Confidential, only for members of the consortium (including the Commission Services)

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The European Union is established in accordance with the Treaty on European Union (Maastricht). There are currently 28 Member States of the Union. It is based on the European Communities and the Member States cooperation in the fields of Common Foreign and Security Policy and Justice and Home Affairs. The five main institutions of the European Union are the European Parliament, the Council of Ministers, the European Commission, the Court of Justice and the Court of Auditors (http://europa.eu/).

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1. Introduction

The European AI, Data and Robotics ecosystem is enormous and changing very fast. At the same time, the AI, Data and Robotics ecosystem is inherently complex due to its holistic nature. Many stakeholders operate from diverse historic backgrounds. However, an all-inclusive engagement and collaboration is required in education and resources. The scale and the inherent complexity make it difficult to impose a one-size-fits-all approach. There are many players and so many resources and materials that all have to be included and used.

As such, T3.1 and T3.3 of WP3 are designed to tackle some of the challenges of this complex ecosystem through providing ADR educational materials and raising awareness of the trustworthiness of AI solutions for AI consumers.

- T3.1 ADR Awareness Centre

The main goal of this task is to develop a structure and framework for outreach and awareness of ADR for collaboration and alignment among all projects within the Partnership as well as relevant external projects.

- T3.4 ADR Awareness Day

The main goal of T3.4 is to promote WP3, and contents developed in this work package through a series of ADR Awareness Day Seminars. This includes promoting the ADR Awareness Centre, results of AI Externalities (good and bad practices), and the selected AI Trust Label and its process of selection and methodology. The ADR Awareness Day will focus on society at large, ethical and trustworthy AI, outreach to SME, and classical industry. We will raise awareness of the acceptability and trustworthiness of ADR. The following groups are targeted a) Public/Citizens, b) Businesses (Large/SME), c) Public Administrators (Large/SME), and d) Educators.

1.1. Target group of the Deliverable

The aim of this deliverable (D3.3) of Adra-e is to provide a detailed report on the activities and in particular the progress of (T3.1) Awareness centre and (T3.4) ADR Awareness day. The target audience of this deliverable includes the five Adra funding organizations, Adra-e Project Management team, Adra-e Consortium members, Adra-e Advisory Board members, and Adra members.

1.2. Document Outline

The remainder of this document is organised as follows:

- Section 1 is an introduction to the Adra-e project and the objectives of its WPs, that details the target group of the deliverable, the links of WP3 with other WPs, WP3 key collaboration and impacts, and gives the document outline.
- Section 2 describes the key collaboration and impacts for T3.1 and T3.4.
- Sections 3 and 4 provide a more detailed description of each task:
    - Section 3 describes all the achievements of T3.1:Development of the taxonomy, test of the taxonomy, development of an online survey to collect materials and resources from participants, manual collection of the materials and resources, mock up design of the awareness Centre, updates on the awareness Centre, a simple guide to participation, launch of the awareness centre, collaborations with WP1 on the general and standard message to previous and new projects, and meetings that took place with WP1 and WP2. Finally, sustainability plans are addressed.

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    - Section 4 describes all the achievements of T3.4. Priority in this task is to promote the contents generated in the previous three tasks. This is done through engagement with the relevant stakeholders via the annual ADR Awareness Day Seminar. This section elaborates on the organization of ADR Awareness Centre Seminar 2023.
- Section 5 provides a conclusion for the deliverable.

2. Collaboration and Impact

This section outlines the key collaborations and impacts of T3.1 and T3.4.

2.1. Key Collaborations

To transform the ADR Skills and Education landscape of Europe, a key principle of WP3 is to connect to and collaborate with European stakeholders, initiatives, and previous and existing EC funded projects to build on their experiences, skills and produced materials in/for the ADR ecosystem. In period 1, WP3 has worked as follows:

- WP3 worked with WP1 to seek support for improving visibility of the Awareness Centre through developing a standard message to be sent out to the partnership projects. One objective of WP1 is to create an ADR partnership dynamic among the projects by stimulating synergies, sharing best practices etc.
- AI-for-Europe project is linked to WP3, T3.1 ADR Awareness Centre in particular. AI-for-Europe is another CSA project funded by the European Commission and the main focus of the project is to develop a community-driven platform (AI-on-Demand) to empower European research and innovation in Artificial Intelligence (AI), while ensuring the European seal of quality, trustworthiness and explainability. Numerous meetings both virtual and physical have been held between Adra-e and AI-for-Europe to find possible ways to share data between the AI-on-Demand platform and the ADR Awareness Centre and the discussions are still ongoing. WP3 will support the data sharing decision and activities and will strengthen collaboration with AI-on-demand project to promote the ADR Awareness Centre and its resources.
- As part of T3.4, we are forming a stakeholder activity group to understand AI trust indicators that can best communicate with the consumers. Details of this group is documented in D3.2.

2.2. Key Impacts - Expected

This section summarises the expected impacts of T3.1 and T3.4 after completion of the tasks.

T3.1 Key Impacts

The main goal of T3.1 is to develop a structure and framework for outreach and awareness of ADR for collaboration and alignment among all projects within the Partnership and relevant external projects. The key impacts of T3.1 are:

- Widespread educational and outreach programmes:
  - Establish an ADR Awareness Centre as an online and living repository for materials and educational resources
  - Empower European research and innovation activities through availability of resources and materials produced in/by the ADR ecosystem
  - Enhance the EU attractiveness for talents in ADR, therefore, accelerating ADR innovation in Europe
  - Promote a wider adoption and adequacy of education and outreach initiatives to stakeholders needs
  - Develop a strong and inclusive network bringing in one place ADR materials and resources from academia, industry, and public and industry users, including the major industrial European sectors and all relevant stakeholders
    - ADR Scientists will be able to find ADR related materials of which mostly are produced in the project scope.
    - Educators can get publicity and gain recognition of their programmes and materials.

- Support of the professional stakeholders (European organizations and professionals) to develop collaborations and partnerships
  - ADR Awareness Center improves and accelerates the match-making process needed by European organizations and professionals to find project resources and partners when addressing ADR challenges collaboratively
  - Available materials and resources help European stakeholders to develop synergies thereby avoiding stagnation and repetition for addressing European ADR challenges, and maximising the impact of EU investments in ADR
  - The online repository aims to become a reference, with ADR educational resources and materials to support the ADR community during the project and beyond
- Support the information sharing between projects in Europe
  - ADR Awareness Centre enables exchange of resources between Horizon Europe, H2020 and other European projects. This deepens the synergy across the ADR domains in Europe
  - ADR Awareness Centre facilitates cross-pollination and sharing of project results and spreads mutual awareness of relevant similar initiatives.
  - ADR Awareness Centre creates a more unified, holistic, and efficient network of programs with common resources aimed at boosting innovation and acceleration developments for ADR in Europe.
  - T3.1 creates an engagement with the AI-for-Europe project and AI-On-Demand platform
- T3.1 maximizes the impact of EU investments in ADR by delivering a readily available service such as the Awareness Centre.
- Dissemination of progress and results
  - ADR Awareness Day Seminar that took place on Oct 20, 2023, via ZOOM (https://adra-e.eu/events/adr-awareness-day-seminar)
  - Collaboration with WP1 on developing a standard message for European projects
  - Collaboration with WP6 on the technical side of the organization of the ADR Awareness Day Seminar
  - Promotion of the Awareness Centre at the ADR Forum 2023
  - Two open access books will be produced under this task

T3.4 Key Impact

The main goal of T3.4 is to promote WP3, and contents developed in this work package through a series of ADR Awareness Day Seminars. This includes promoting the ADR Awareness Centre, results of AI Externalities (good and bad practices), and the selected AI Trust Label and its process of selection and methodology. The key impacts of T3.4 are:

- Impacts on open science in the Horizon Europe program
  - Awareness Day seminars raise awareness of the acceptability and trustworthiness of ADR through targeting a) Public/Citizens, b) Business (Large/SME), c) Public Administrators (Large/SME), and d) Educators.
- Addressing the ADR challenges and questions of a larger audience
  - ADR Awareness Day provides answers to the questions and challenges of a large audience from the AI, Data and Robotics insiders (academic and companies), the regional representatives and innovation ecosystems and ultimately to representatives of European Member States.
- Facilitate a multi-stakeholder dialogue and focused network gatherings
  - Awareness Days invite expert panels to discuss the tasks and contents produced in WP3. This helps experts to connect to one another and the audience to establish connection with the experts

    - Awareness Day with different scope and audience will connect the entire ADR ecosystem and facilitate a multi-stakeholder dialogue
    - Awareness Day increases awareness and understanding of ADR in order to remove the most significant obstacle to the uptake of ADR technologies
- Support stakeholders at every stage of the research and innovation cycle: from the researchers in public and private institutions to the small and large business corporations and to the public sectors procuring, adopting, and enabling the uptake of new technologies and practices, from the governors of regional ecosystems and the leads of national programs to the end-users of the deployed technology
- The yearly Awareness Day with publishable awareness materials could also provide answers to common questions related to AI (in the form of a “FAQ” in the website).

3. Task 3.1 – ADR Awareness Centre

This section details the main achievements of T3.1 “ADR Awareness Centre for Education and Outreach” led by UoG.

This task is divided into four major phases:

1. SRIDA-informed taxonomy
2. Methods of Collection of resources and materials (Online Survey Design, manually collected materials, and via the Awareness Centre)
3. Design and test of the Awareness Centre polinisation
4. Final testing, Launch, and Promotion

3.1. Phase 1 - Taxonomy

Development of a lightweight structure (taxonomy) for outreach and awareness materials for ADR content to provide a framework for collaboration and alignment among all projects within the Partnership.

For this phase, we employed the European AI, Data, and Robotics schematic framework (Figure 3) to develop the taxonomy for the Awareness Centre. This helps collect ADR resources and materials that are aligned with this framework. Additionally, the Awareness Centre aims to target a wide range of audience (Figure 2). Figure 1 presents the taxonomy developed for the ADR Awareness Centre.

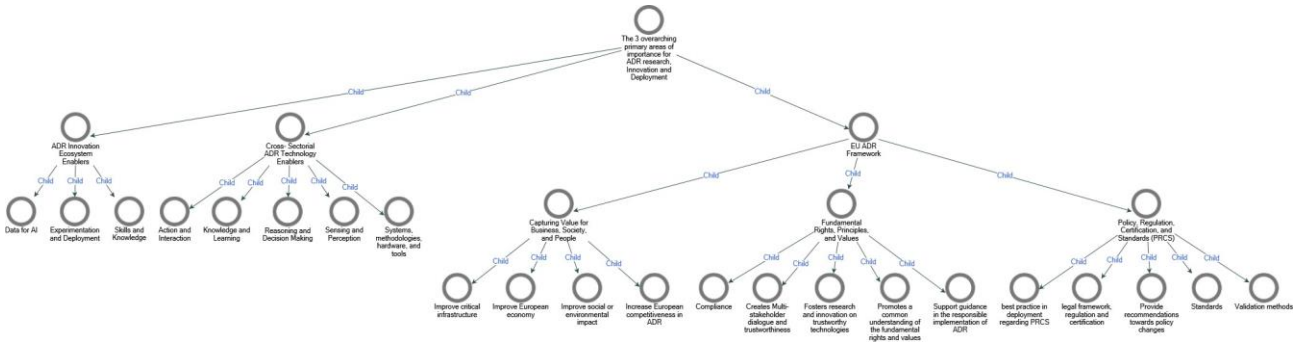

Figure 1. DR Awareness Centre lightweight structure (taxonomy)

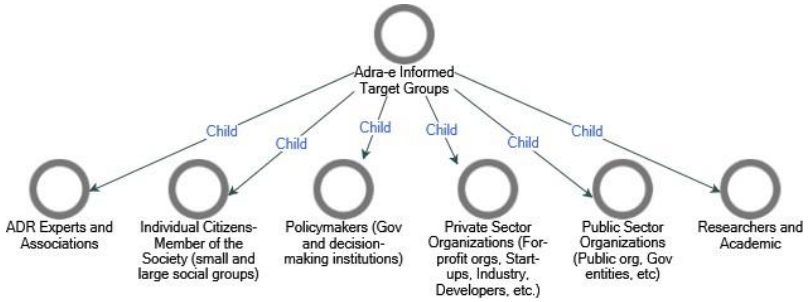

Figure 2. Target group

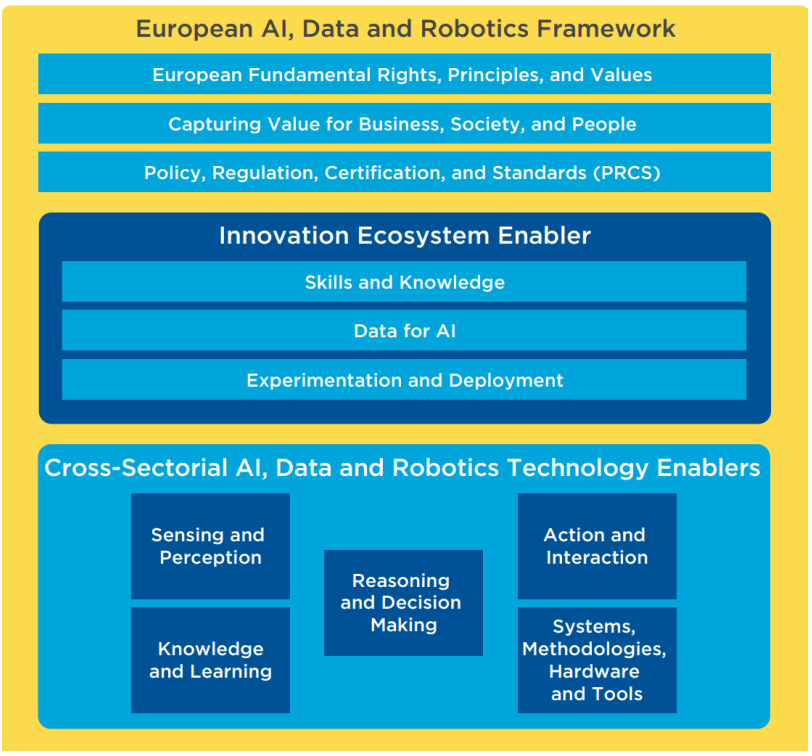

Figure 2. European AI, Data, and Robotics Framework

The structure was tested using the Elements of AI Course https://www.elementsofai.com/ie/. This is shown in Figure 4.

The Elements of AI is a series of free online courses created by Minna Learn and the University of Helsinki. We want to encourage as broad a group of people as possible to learn what AI is, what can (and can't) be done with AI, and how to start creating AI methods. The courses combine theory with practical exercises and can be completed at your own pace.

Elements of AI Use Case

About	Initiative	Course and/or Training Material World-Wide
	Partnership	Horizontal Partnership (MinnaLearn and the University of Helsinki)
	Beneficiary or the Stakeholder Group	Students Individual Citizens-Member of the Society
ADR Enabling Environment	ADR Core Technical Competencies	○ The Course provides basic understanding and exercises for students and members of the society to develop basic AI methods and applications ○ The course will stimulate cooperation between students in the AI value chain around experimentation ○ The course will enable students to use tools and datasets covering the whole experimentation process ○ Students learn about machine learning and neural network, and learn where and how AI methods are applied in real life ○ Students are able to craft their own AI idea and present it to their community
	ADR Innovation Element	○ The course establish AI skills recognition through certification mechanism for training and learning ○ The course contributes to the development of STEM skills ○ The course help students establish the skills needed to learn and build AI ideas. Skills such as ML, NN, Statistics, etc. ○ The course promotes open dataset for the development of AI ideas ○ The course promotes the use of data platforms and greater access to data for AI ○ The course provides a support for students to safely embrace new technologies and practices ○ The course provides basic guide and standards in relation to tools, technologies, datasets, and privacy preservation
	ADR Impact on the Stakeholders – Legal and Societal Elements	○ The course provides basic understanding of the ethical, legal and societal contexts around AI method and applications. And Students can clearly see the links to relevant regulation, certification, and standardisation. ○ Students learn that AI solutions must be based on values that are compatible with European rights principles and values. ○ Students learn that the core element of acceptance and adoption is trust and trustworthy AI ○ Students get informed of the potential of AI as well as of the risks and limitations ○ The course helps students to see the importance of the links between the supply and demand side where the AI solution should positively impact the society and the economy

Figure 4. Elements of AI Course

3.2. Phase 2 – Methods for collecting resources and materials

Online Survey

An online survey was set up for external users, and can be seen at URL https://adra-e.eu/form/t3-1-adr-awareness-centre-for-ed, It contains the following sections:

Background Questions (Organization, Project name, URL, Name of the Resource, Short Description)

Type of Educational Resource

Target Audience

Subject Categories

- Fundamental Rights, Principles, and Values
- Policy, Regulation, Certificates, and Standards
- Data for AI
- Experiment and Deployment
- Sensing and perception technologies
- Action and Interaction Technologies
- Reasoning and decision-making Technologies
- Systems, methodologies, hardware, and tools

Impact of AI, Data and Robotics (ADR)

Manually collected resources

In parallel, resources have been collected manually (Figure 5) before the launch of the Awareness Centre. This allowed us to update the Centre. In Figures 6, 7 and 8, we show statistics on the manually collected resources.

Data for the platform is coming from the Survey and manually collected materials and resources

The main challenge for us is to reach out to all the H2020 projects and seek their direct contribution and engagement of partners and project coordinators. All these projects have completed and ended therefore, there is no commitment or obligation for these projects to continue their effort through their engagement in the ADR Awareness Centre.

	Name of the Resource	Description of the resource	Type of Educational Resource	Target Audience	Subject Categories	Sub Categories	Impact of the Resource - 1	Impact of the Resource -2	URL of the resource
2	Professional Diploma in Artificial Intelligence for Business	Understand what AI is in practical terms, learning about the different applications and technologies across diverse industries, geographies, and functions in organisations	Online Course	Private Sector	Systems-method-to	Technology methodologies and landscape, Support tools	Economic	EU Competitivness in ADR	https://www.ucd.ie/pr intelligence/?campaign _device=c&utm_term= c&utm_campaign=a%2
3	10 Best AI Tools for Education	Most of the conversation surrounding artificial intelligence (AI) tools is often	Professional development	Shools-Academic-Researcher	Systems-method-to	Support tools	Education	AI in Government-	https://www.unite.ai/1
4	rustworthiness of AI applications in public sector	Public trust is a key component for the adoption and diffusion of newly emerging technologies, even more in the case of	Video/Webinars	Public Sector	Fundamental rights-principles-value	Support guidance in the responsible implementation of	AI in Government	EU Competitivness in ADR	https://ai-watch.ec.eur public-sector_en
5	AI for all humans: A course to delight and inspire!	The course is designed to give you the tools you need for effective participation in machine learning for solving business	Online Course	Adult Learners/all	Systems-method-to	Technology methodologies and landscape,	Economic	EU Competitivness in ADR	https://aiforteachers.o
6	Ensuring the Safety of Artificial Intelligence	The essays are some of our first steps towards an understanding of how to make today's choices in ways that take the	White paper	Adult Learners/all	Policy-regulation-certificates-standards	Legal framework and regulation, Recommendations	Regulatory impact	AI in Government-Governance	https://da63870c-986 fb15d5bae843.filesusr.
7	AI in Middle School Science Topics	Any instance where there is a large amount of data to be examined or processed that	Online Course	Shools-Academic-Researcher	Sensing and perception	Sensing and processing	Education		https://aiforteachers.o
8	AI in practice and implementation strategies	this session deals with the implementation of AI in public sector organisations. It will asks panelists to reflect on the challenges	Video/Webinars	Public Sector	Experiment and development	Cooperation with partners (data owners, providers,	AI in Government-Governance	EU Competitivness in ADR	https://ai-watch.ec.eur implementation-strate
9	Defend the Rhino	Join our data science team and help us stop	Software resources	Shools-Academic-Researcher	Data for AI	Data processing technologies	Environmental	Education	https://aiforteachers.o
10	Toward Trustworthy AI Development: Mechanisms for	This report suggests various steps that different stakeholders in AI development can take to make it easier to verify claims about AI development, with a focus on	White paper	Adult Learners/all	Fundamental rights-principles-value	Support guidance in the responsible implementation of ADR,	Regulatory impact	EU Competitivness in ADR	https://arxiv.org/pdf/2
11	A General Language Assistant as a Laboratory for	Given the broad capabilities of large language models, it should be possible to work towards a general-purpose, text-based	White paper	Adult Learners/all	Reasoning and decision making technologies	Trustworthiness	Social	Regulatory impact	
12	The regulatory perspective	In this webinar, we heard from regulators at different administrative levels, practitioners	Video/Webinars	Public Sector	Policy-regulation-certificates-	Legal framework and regulation,	Regulatory impact	EU Competitivness	https://ai-watch.ec.eur
13	Bringing AI closer to citizens – smart communities	Cities, regions and local administrations increasingly represent testbeds for technological innovation and are adopting	Video/Webinars	Public Sector	Experiment and development	Cooperation with partners (data owners, providers,	Social	AI in Government-Governance	https://ai-watch.ec.eur smart-communities_en
14	Recommendation on the Ethics of Artificial Intelligence	This Recommendation aims to provide a basis to make AI systems work for the good of humanity, individuals, societies and the environment and ecosystems,	Article/Books/eBooks	Public Sector	Policy-regulation-certificates-standards	Legal framework and regulation, Recommendations towards policy	Regulatory impact	AI in Government-Governance	https://unesdoc.unesc
	AI Ethics and Implications	This webinar addresses the ethics of AI in healthcare.	Video/Webinars	Public Sector	Fundamental rights-principles-value	Support guidance in the responsible implementation of	AI in Government-Governance		https://www.youtube.c

Figure 5. Manually collected resources

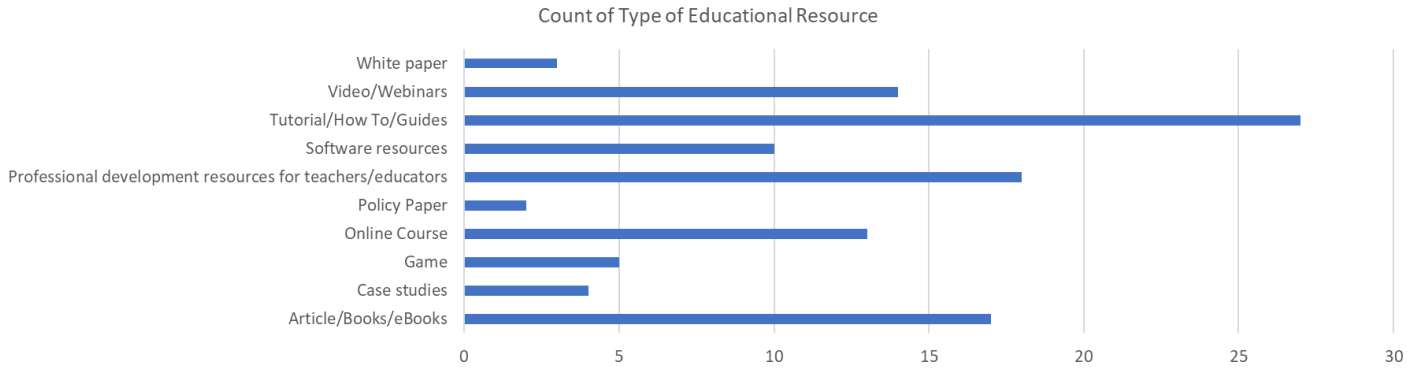

Figure 6. Count of the types of the resources

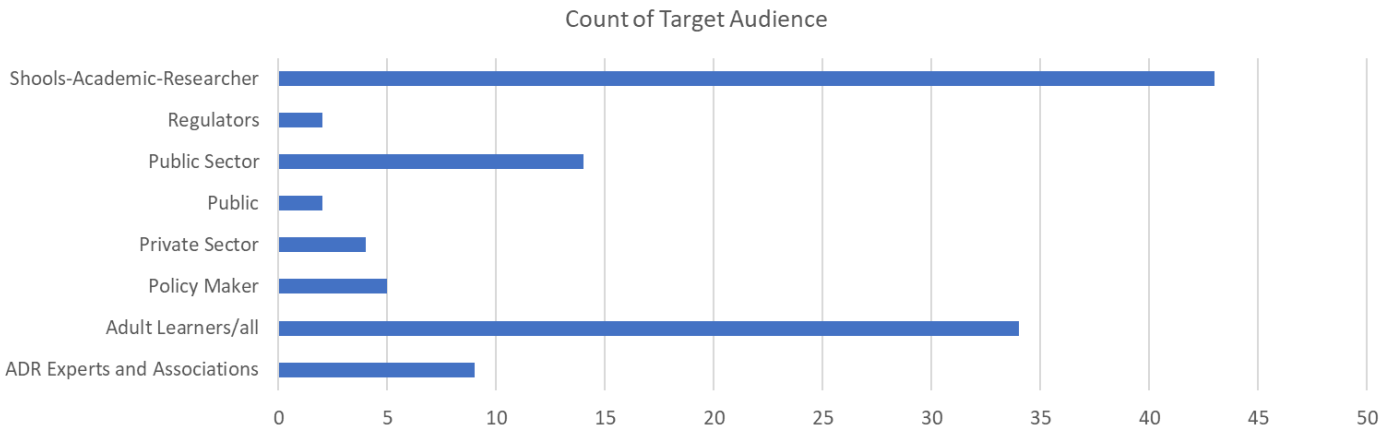

Figure 7. Count of the target audience

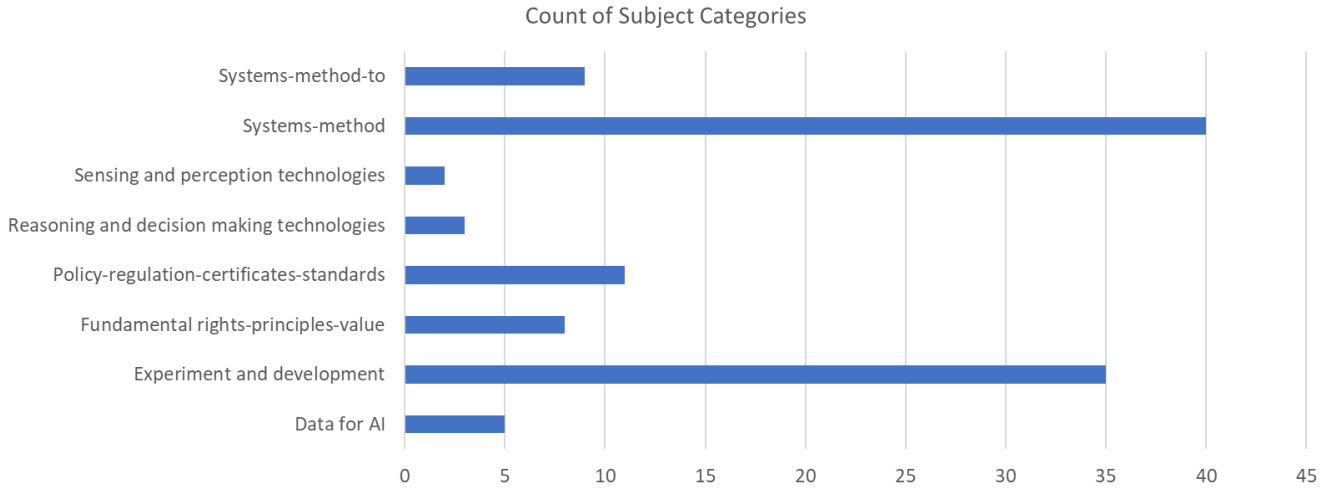

Figure 8. Count of the Subject categories based on SRIDA

3.3. Phase 3 – Design and development of the Awareness Centre

- A mockup of the Awareness center was based on the Blue-Cloud project https://blue-cloud.d4science.org/catalogue-bluecloud (Figure 9)
- Content and resources were then manually inserted
- Extensive testing of the Centre was then performed.

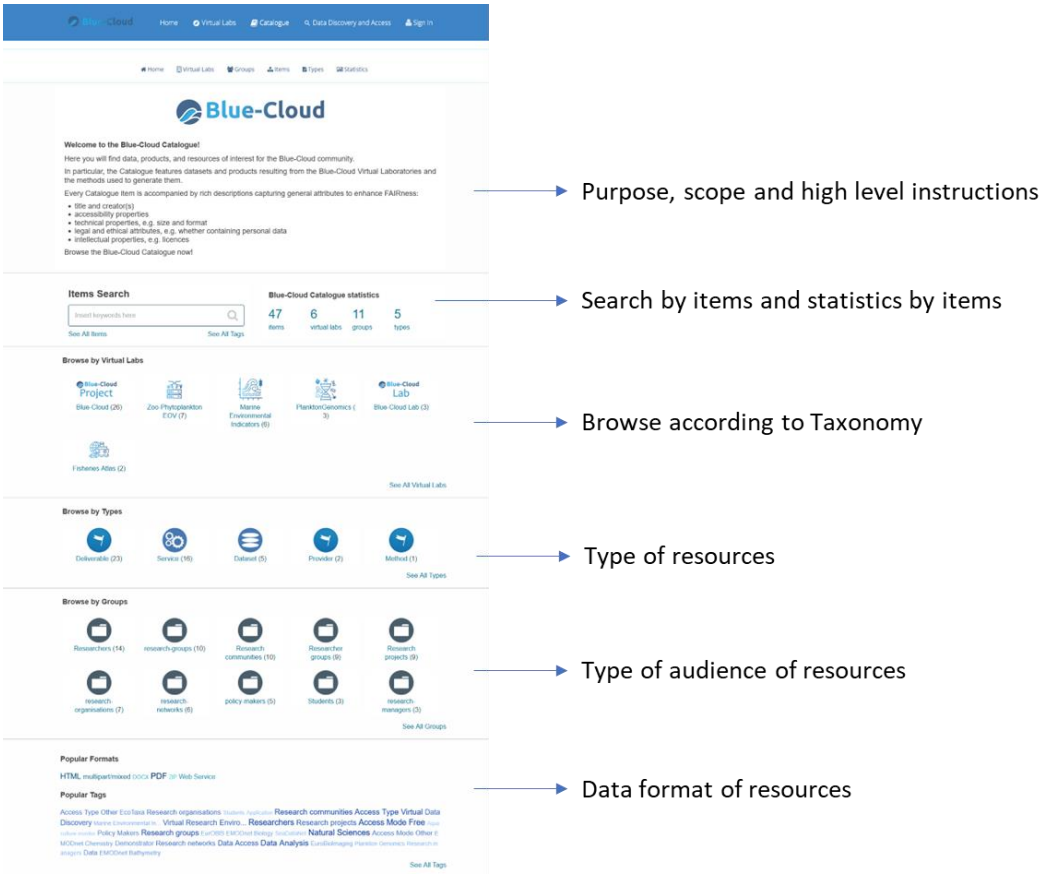

Figure 9. Blue Cloud Project platform

3.4. Phase 4 – Launch of the Awareness Centre

The ADR Awareness Centre is part of the Adra-e Web platform, a digital repository of material produced for the ADR Partnership, accessible to the larger ADR ecosystem.

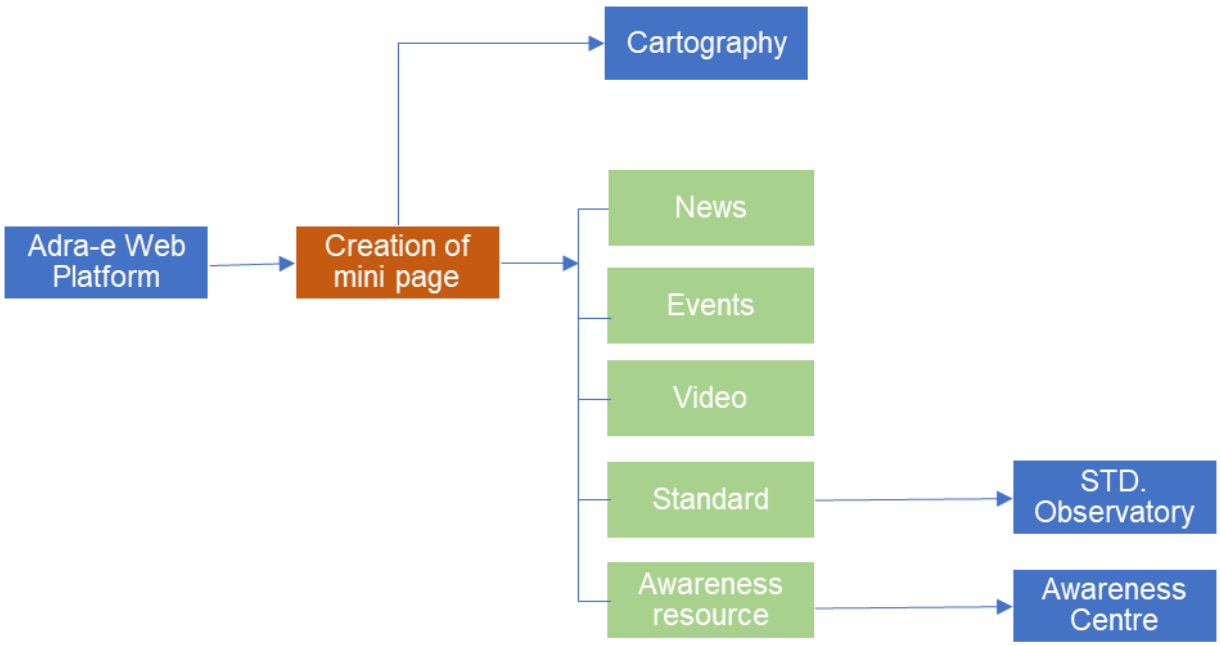

Figure 10. ADRA-E Platform and the positioning of the ADR Awareness Centre

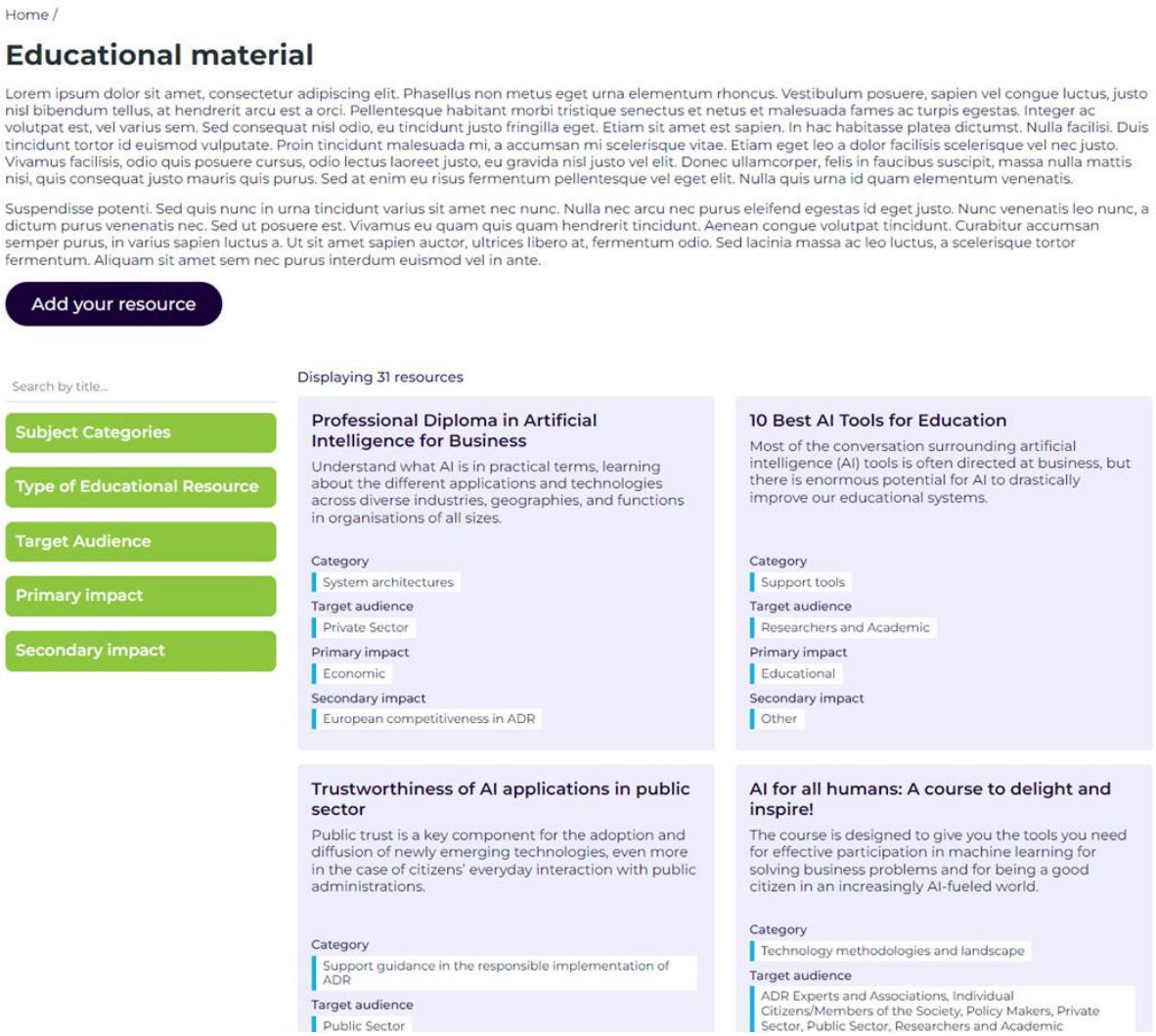

Figure 11. The ADR Awareness Centre

https://adra-e.eu/educational-material

3.5. Update to the ADR Awareness Centre

Update to the Centre is possible both internally by the WP3 leader as an Admin to this process and other individuals within Adra-e consortium and outside the project.

This part provides step by step guide on how update is possible through both approaches. This guide is divided into two parts: the first part is explaining how to manage the Awareness Centre from an Admin perspective (WP3 lead). The second part is explaining how an external user is able to insert resources into the Awareness Centre and how an Admin can check and eventually publish a resource which has been submitted by an external user.

Managing content by the Admin (WP3 leader)

Insert Content

Step 1 - Login with the credential provided to the admin (WP3 lead) here https://adra-e.eu/user

Step 2 - From the admin menu at the top of the page, hover on "Content", hover on "Add content" and click on "Educational material":

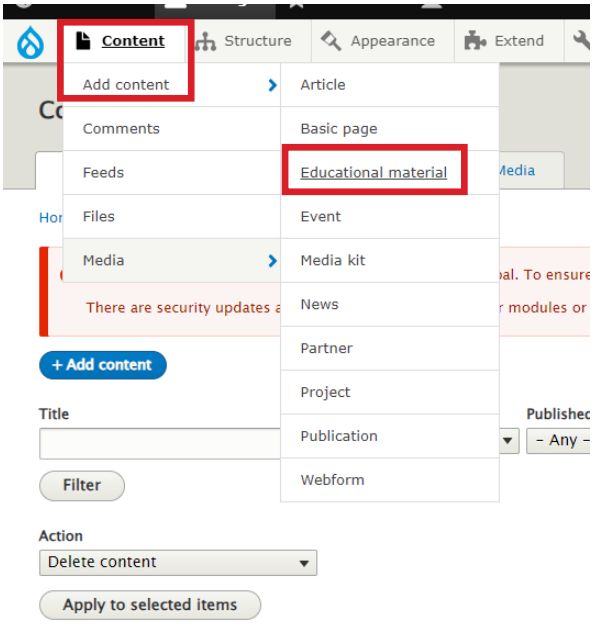

Figure 12. Admin Adding a Resource - Step 1

Step 3 - Completing all the required fields to add a resource and once done click on "Save" at the bottom of the page. The "Body" field is where you should insert the description of the resource. This includes adding links, images, formatting the text etc. just like a Word editor.

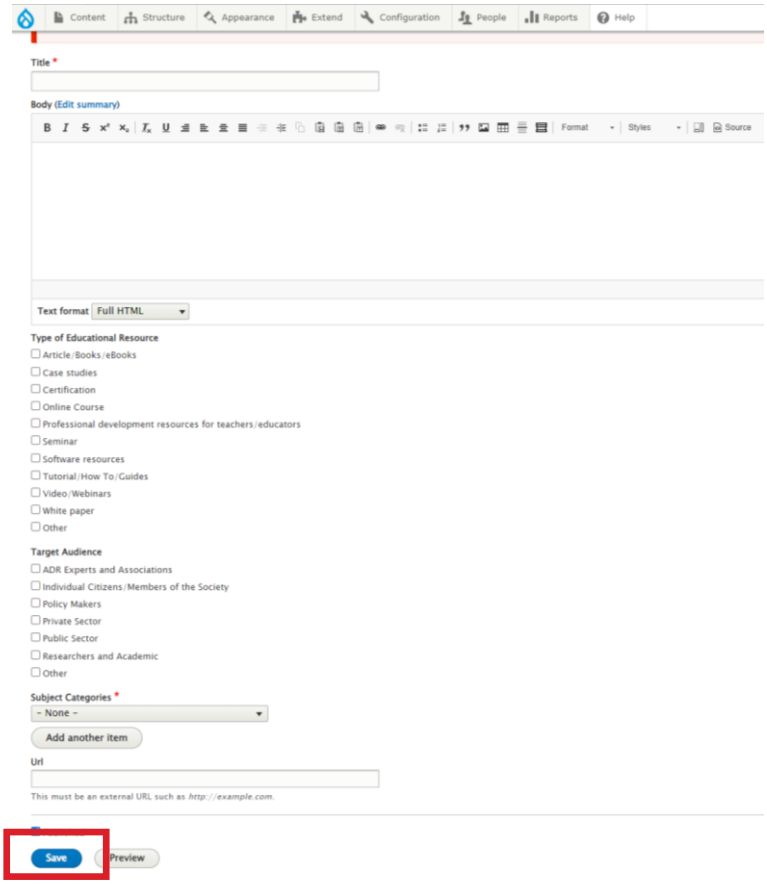

Figure 13. Admin Adding a Resource - Step 2

It is possible to save a draft of the resource without publishing it. For this, admin can simply deselect the field "Published" and click on "Save". This allows continue working on the resource without it being show to the final users until it is published.

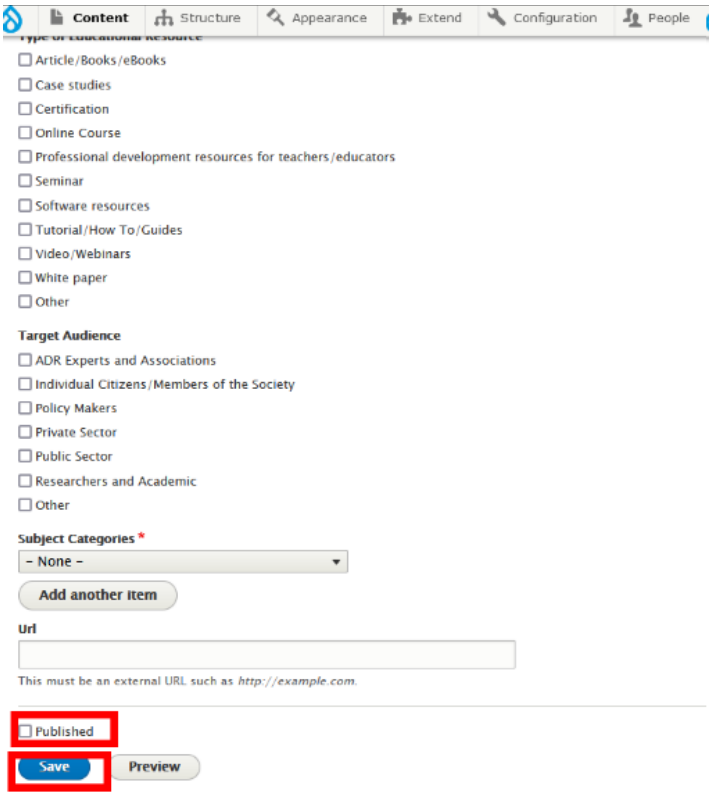

Figure 14. Admin Adding a Resource - Step 3

<u>Modifying the inserted resources by the Admin (WP3 lead)</u>

Step 1 - From the admin menu at the top of the page, click on "Content". This will open the Database with all contents available:

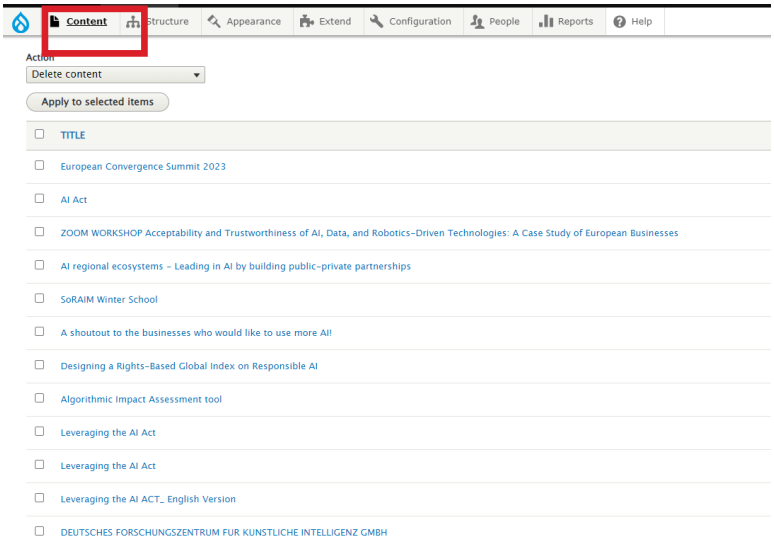

Figure 15. Admin Modifying a Resource - Step 1

Step 2 - Select "Educational material" from the field "Content type" and click on "Filter". This will open only the contents in the Awareness Centre.

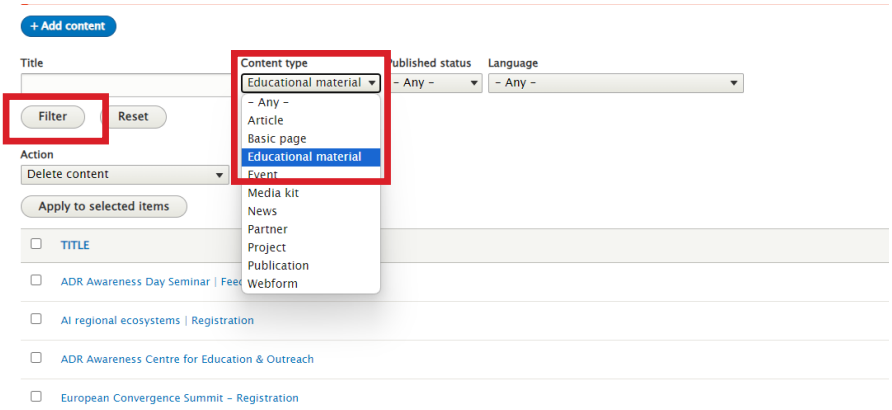

Figure 16. Admin Modifying a Resource - Step 2

Step 3 - Choose the resource to modify and click on "Edit" under the column "Operations" at the right:

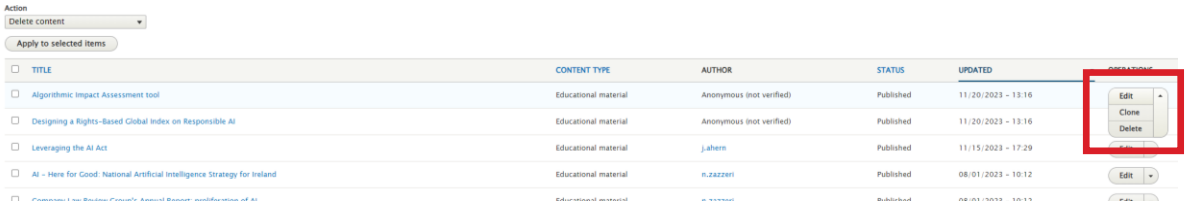

Figure 17. Admin Modifying a Resource - Step 3

Step 4 - Apply the changes. Admin can change everything, from the descriptive text in the "Body" field, select or de-select fields from "Type of Educational Resource", "Target Audience" and Subject Categories" as well as changing the URI of the resource if needed.

Once the changes are done click on "Save" at the bottom of the page

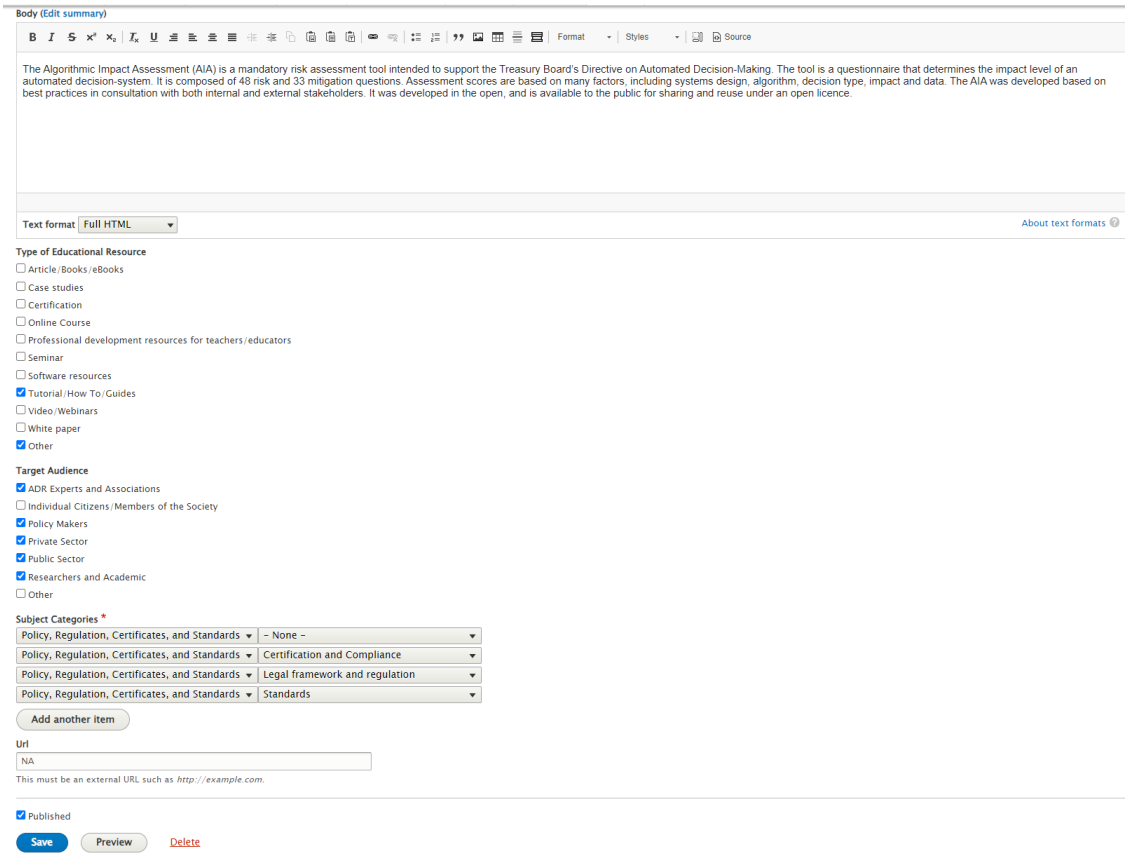

Figure 18. Admin Modifying a Resource - Step 4

Deleting a resource

Step 1 - From the admin menu at the top of the page, click on "Content". This will open the Database with all contents available:

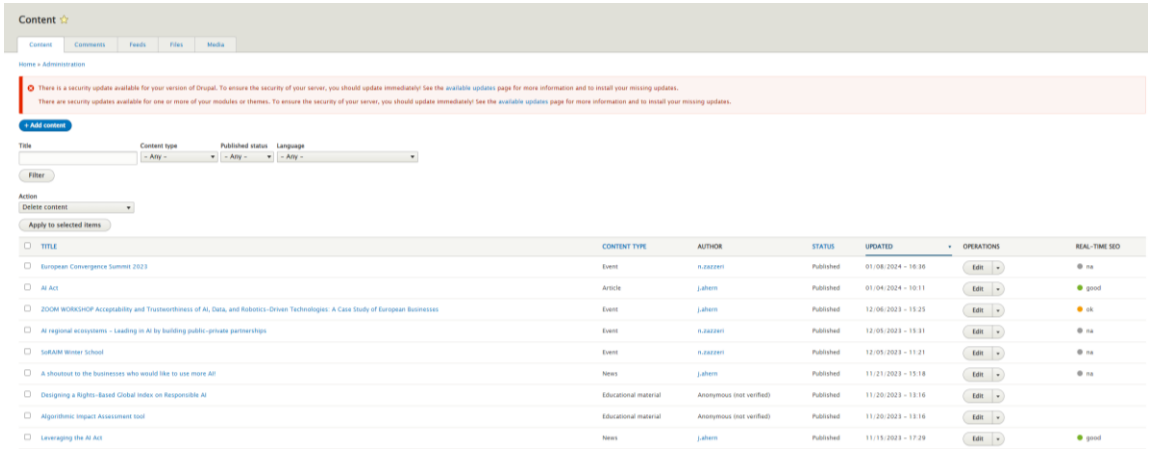

Figure 19. Admin Deleting a Resource - Step 1

Step 2 - Select "Educational material" from the field "Content type" and click on "Filter". This will open only the contents in the Awareness Centre.

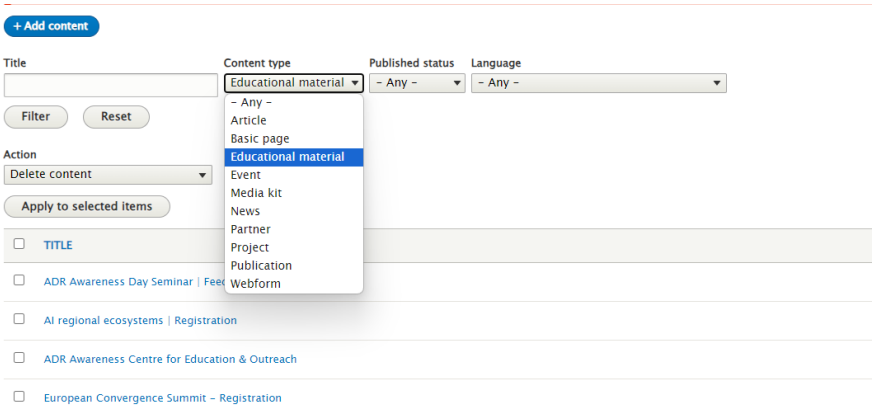

Figure 3. Admin Deleting a Resource - Step 2

Step 3 - Choose the resource you want to modify, click on the arrow next to "Edit" under the column "Operations" at the right and select "Delete".

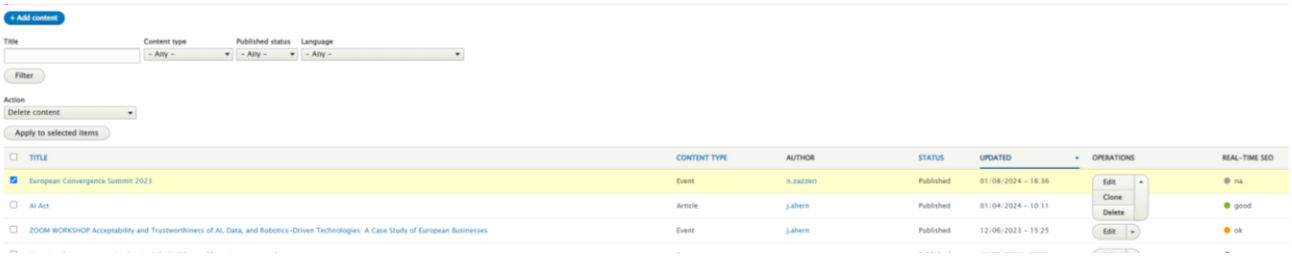

Figure 4. Admin Deleting a Resource - Step 3

Step 4 - Confirm by clicking on "Delete". Please note that this will delete permanently the resource from the Database:

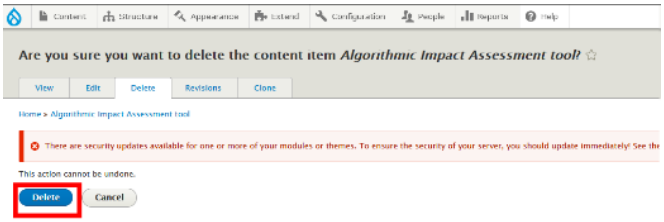

Figure 5. Admin Deleting a Resource - Step 4

Inserting resources by external users

External users will be able to submit resources to the Awareness Centre by simply completing the form for external users: https://adra-e.eu/form/t3-1-adr-awareness-centre-for-ed

After the submission the external user will receive a message displayed on the website saying that the Awareness Centre Team will evaluate the submission and will contact the user as soon as possible:

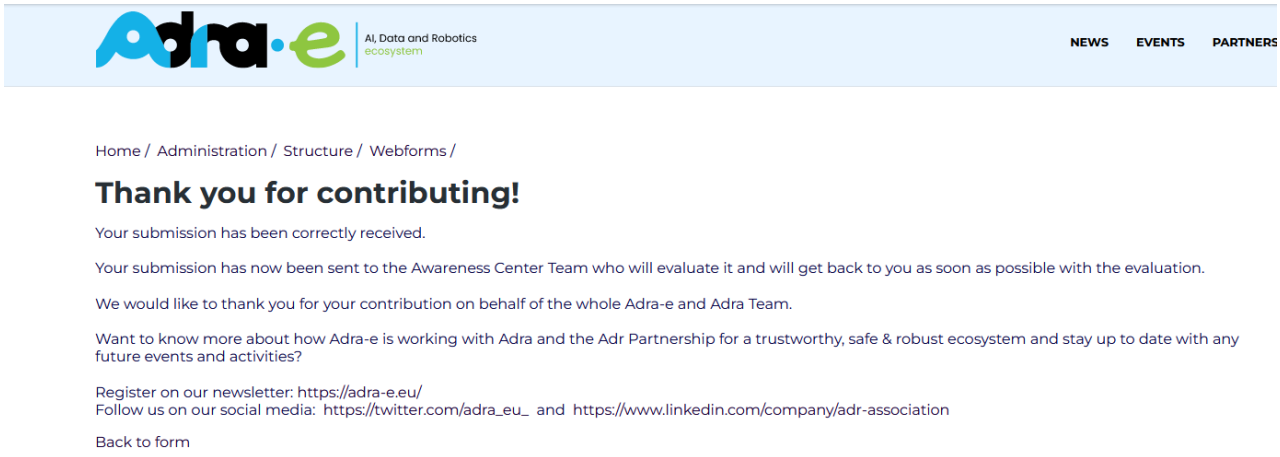

Figure 6. External user adding a resource

At the same time, the submitted resources is saved in the Awareness Centre database for the Admin user to check and eventually publish/modify/delete this (see section below).

How the Admin should handle resources coming from external users

Step 1 - Once an external users have submitted a resource, a notification email will be sent to the Admin user with a link to the resource submitted.

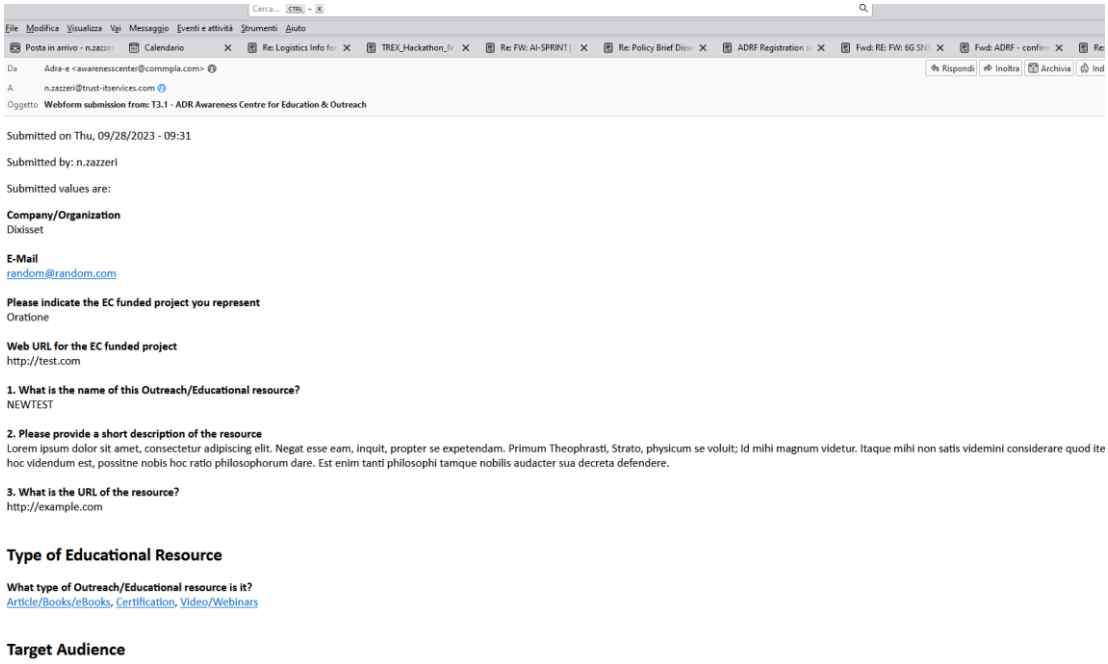

Figure 7. Admin validating a submitted resource - Step 1

The sender of the notification is awarenesscenter@commpla.com so this email address should be whitelisted by the Admin user to avoid that notifications coming from it go into spam. Step 2 – Scroll the email until the bottom and you will find a link which redirects you to the submitted resource (the link where you should click is near to the text “CLICK HERE TO MANAGE THE RESOURCE”):

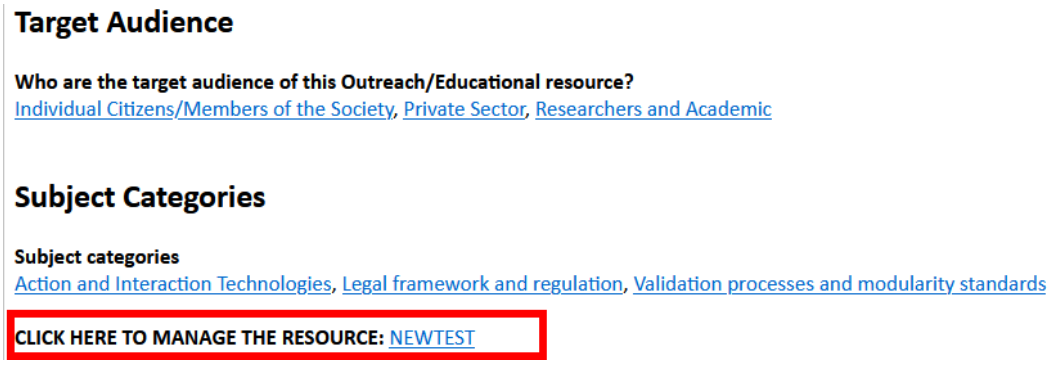

Figure 8. Admin validating a submitted resource - Step 2

Step 3 – Admin is redirected on the Awareness Centre where the resources is saved.

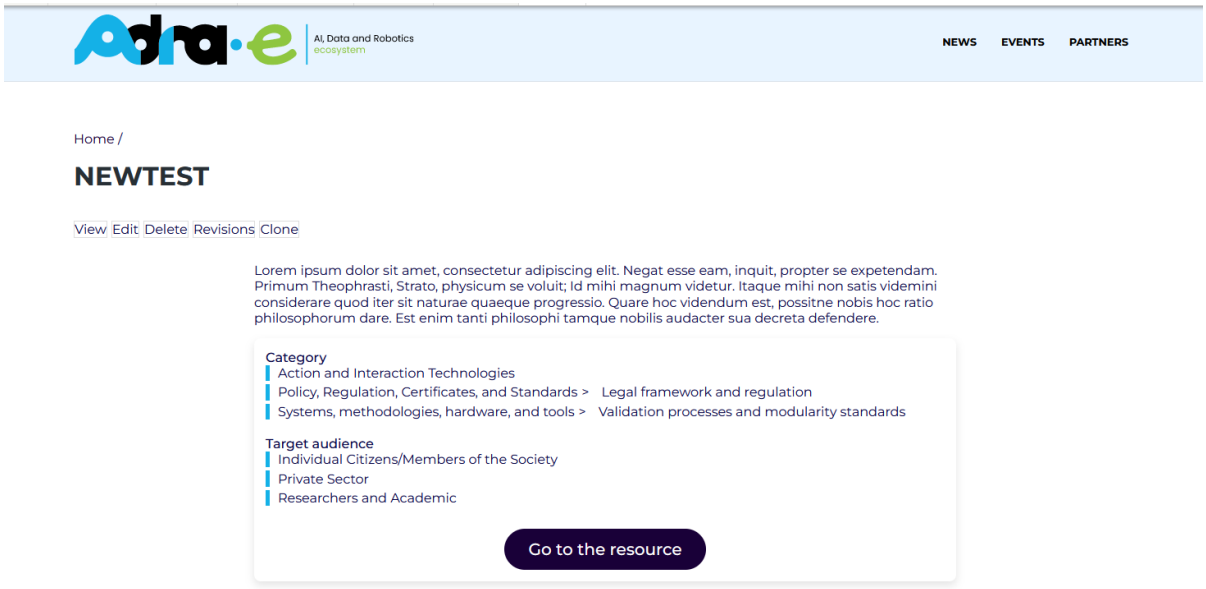

Figure 9. Admin validating a submitted resource - Step 3

Click on “Edit” to manage the resource. Please note that you need to be logged in with the Admin credentials to manage the resource.

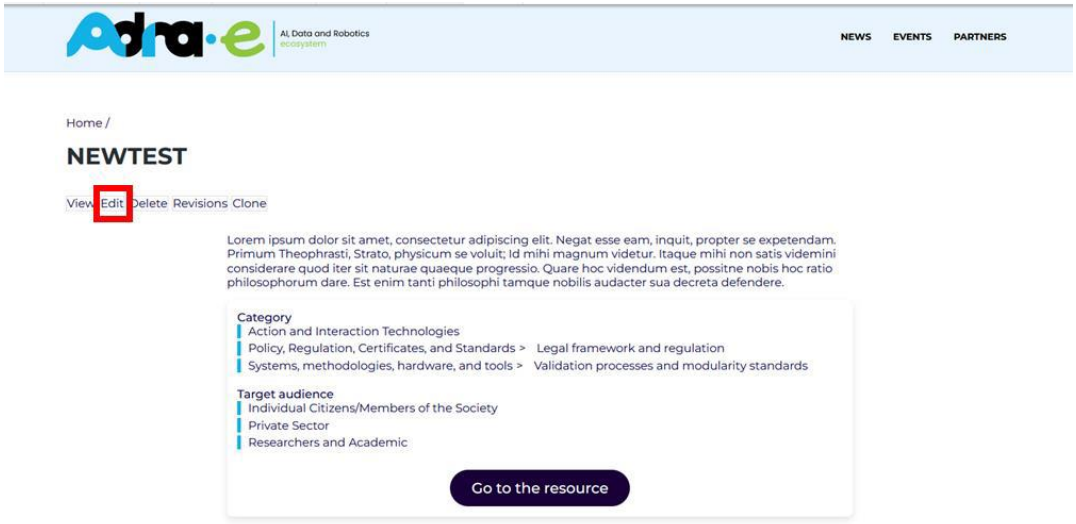

Figure 10. Admin validating a submitted resource - Step 4

From here Admin can apply the desired changes to the submitted resources, publish it or delete it.

Admin can change everything, from the descriptive text in the “Body” field, select or de-select fields from “Type of Educational Resource”, “Target Audience” and Subject Categories” as well as changing the URL of the resource if needed:

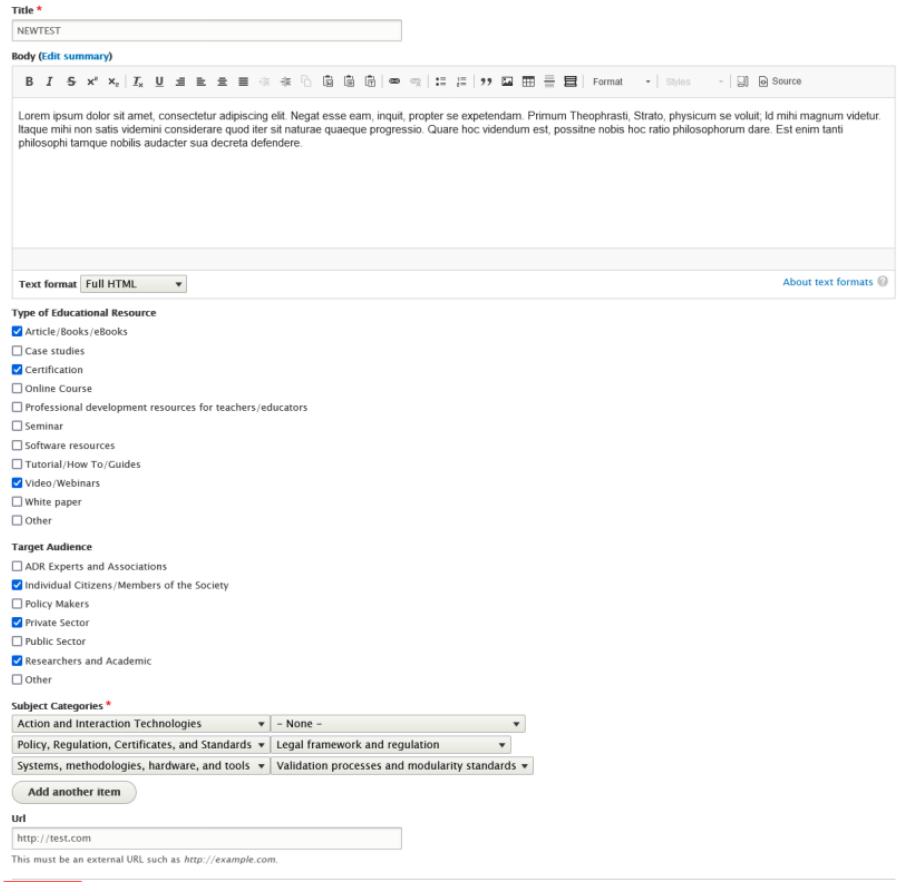

Figure 28. Admin validating a submitted resource - Step 5

Once the changes are done and you are ready to publish the resource flag the field “Published” and click on "Save" at the bottom of the page:

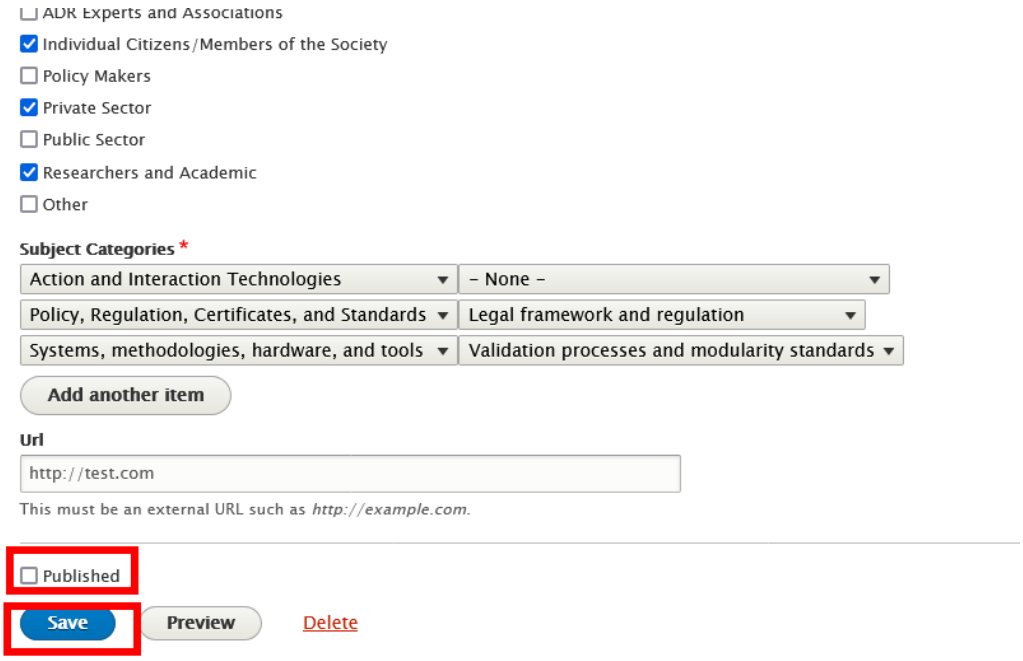

Figure 29. Admin validating a submitted resource - Step 6

If Admin would like to save a draft of the resource without publishing it she can simply deselect the field "Published" and click on "Save". This allows continue working on the resource without it being shown to the final users until Admin publish it.

To delete a resource click on “Delete” at the bottom of the page.

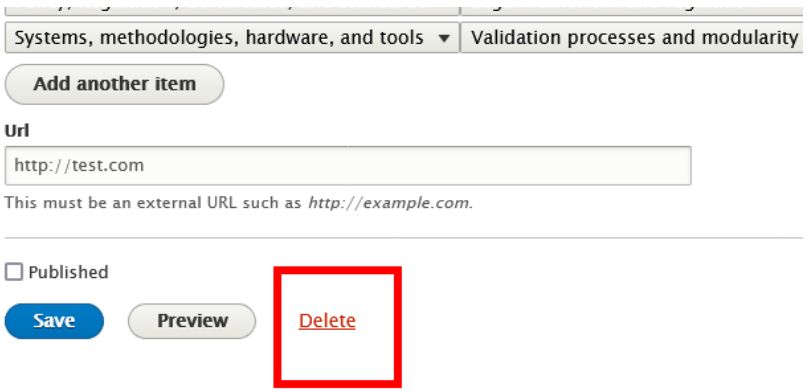

Figure 11. Admin deleting a resource

This will delete permanently the resource from the Database:

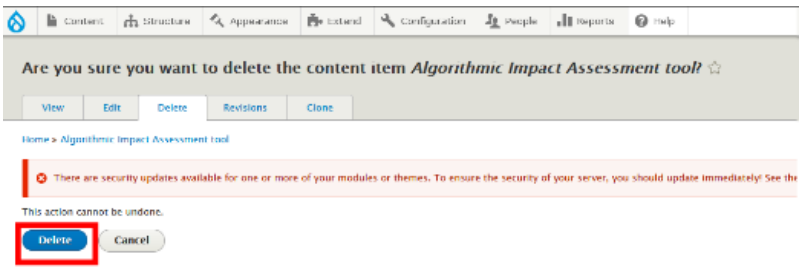

Figure 12. Admin permanently deleting a resource

4.Task 3.4 – ADR Awareness Day

Main goals of T3.4 includes:

- Organize Awareness Days, annual stakeholder engagement seminars (three in total) to raise awareness of the acceptability and trustworthiness of ADR, using
  - a curated set of material from T3.1
  - The results of the meta-analysis from T3.2
  - Trust label from T3.3

The ADR Awareness Days - AAD - focus on society at large, ethical, and trustworthy AI, with outreach to SME and classical industry, in order to raise awareness of the acceptability and trustworthiness of ADR. The following groups are targeted a) Public/Citizens, b) Business (Large/SME), c) Public Administrators (Large/SME), d) and Educators.

- Annual (three) awareness day - M12 (July 3 or 12), M24, M36
- First one to be virtual and no need to co-locate or co-time it with other events
- For the next two (M24, M36), we can use lessons learnt from that first one to improve it.
- These two other events can be virtual or hybrid.
- Co-locating the other two events with the ADR Conference is under discussion
- Co-timing with the Convergence Summit would be seriously tight, but not undoable.
- Duration (half a day or one full day) should be adapted to the available content.

Date and time of first Awareness Day: Oct 20, 2023 - 10:00 AM to 12:00 PM (GMT+1)

Location: Virtual event via ZOOM

Partner: UoG, LiU

General description of the event (adversized): The ADR Awareness Day is an annual stakeholder engagement event dedicated to raising awareness of the acceptability and trustworthiness of ADR (AI, Data, and Robotics) technologies. Hosted by the Adra-e Project, the seminar brings together experts and stakeholders to explore the latest developments and initiatives aimed at fostering trust and ethics in AI applications.

Specific input from WP3

- UoG presented the results of T3.3 and proposed a few challenge questions to be addressed by the panel of experts. UoG designed a few and short post-event online questionnaire available at https://adra-e.eu/adr-awareness-day-seminar-feedback-survey
- LiU presented the results of T3.2 and proposed a few challenge questions to be addressed by the panel of experts
- For people unable to attend the seminar, a complete recording of the session is now publicly available and accessible at https://adra-e.eu/events/adr-awareness-day-seminar

Outcome of the event:

- Dissemination of T3.1 and T3.3
- Comments and feedback from the experts
- Responding to the questions of the audience

Statistics on Attendees:

Table 1. Some Statistics from the ADR Awareness Day Seminar

Registered	Attendees	YouTube views	WebPage visit
125	65	52	179

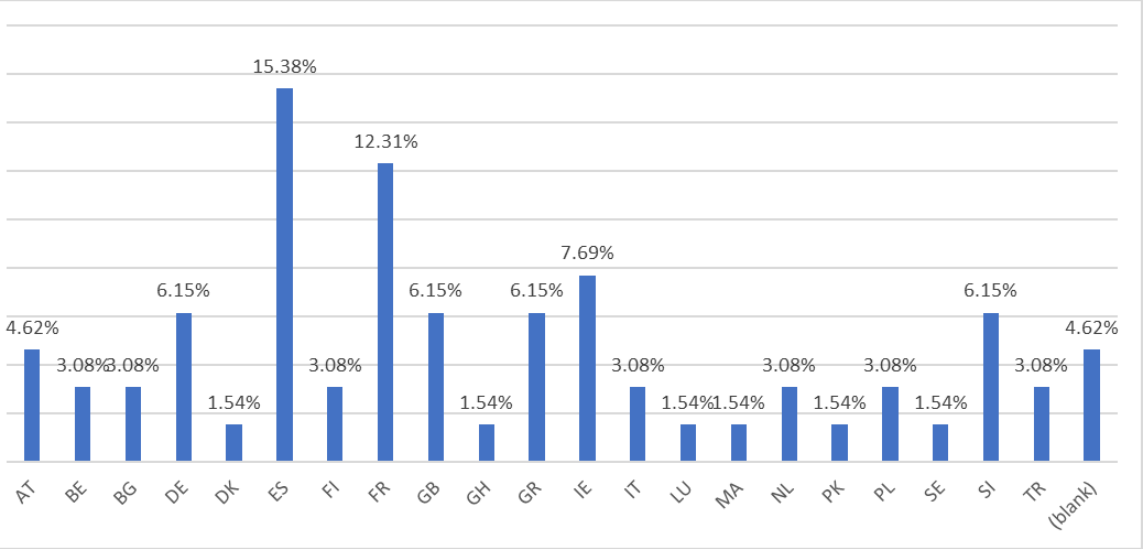

Figure 13. Country of participants to the ADR Awareness Day Seminar

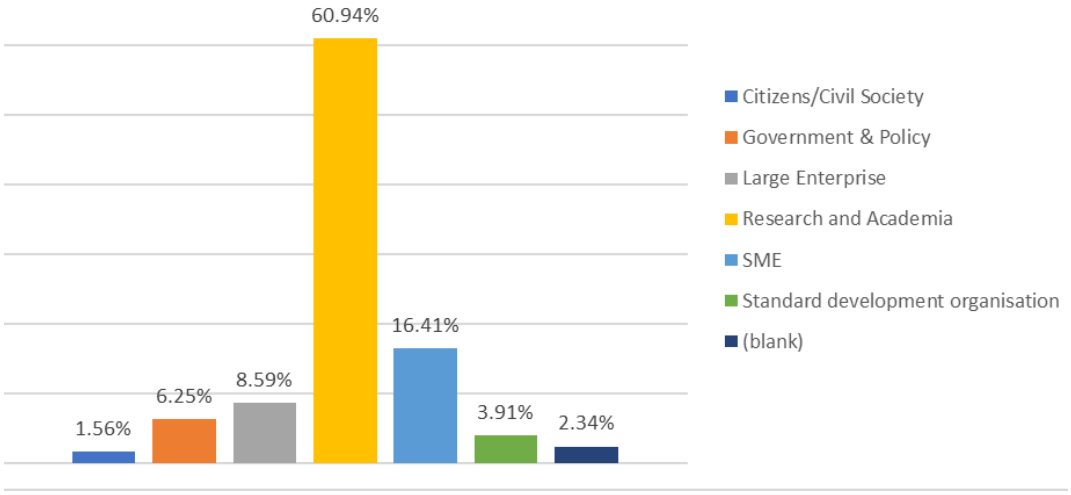

Figure 33. Types of the organizations of the participants

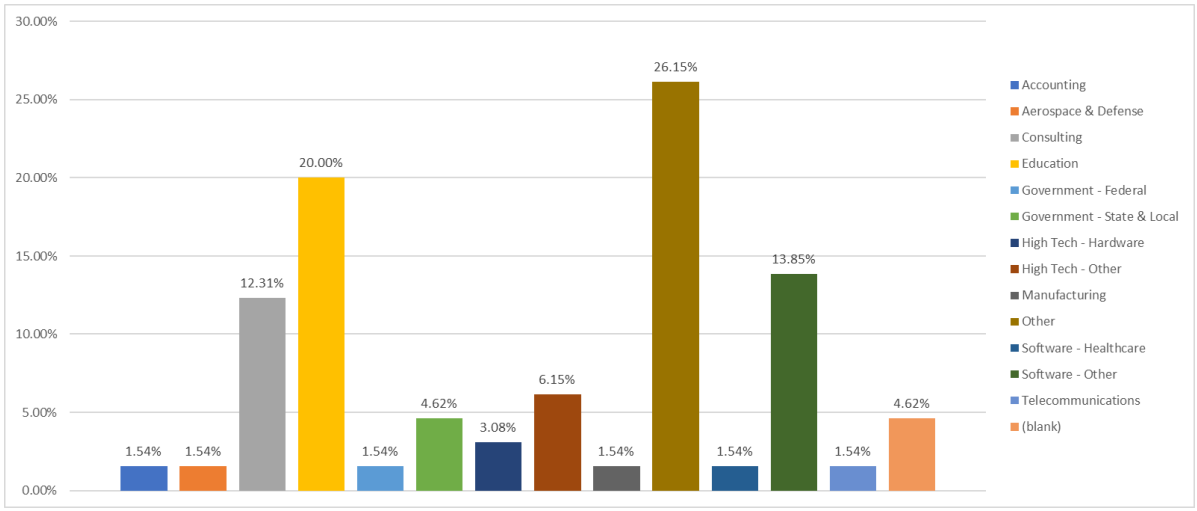

Figure 34. Economic sector of the participants

The seminar consists of two main sessions: 1) AI Trust Label and 2) AI Externalities

Specific input from Session 1 - AI Trust Label:

- UoG presented the results of T3.3 and proposed a few challenge questions to be addressed by the panel of experts. Questions were around Trustworthiness of AI, AI Trust Label, Challenges of regulating AI, Self-regulation, and the future of AI regulation
- UoG designed a few and short post-event online questionnaire available at https://adra-e.eu/adr-awareness-day-seminar-feedback-survey
- For people unable to attend the seminar, a complete recording of the session became publicly available and accessible at https://adra-e.eu/events/adr-awareness-day-seminar

Session moderator: Prof. Edward Curry

Edward is the Established Professor of Data Science and Director of the Insight SFI Research Centre for Data Analytics at the University of Galway. Edward has made substantial contributions to semantic technologies, incremental data management, event processing middleware, software engineering, as well as distributed systems and information systems. He combines strong theoretical results with high-impact practical applications. The excellence and impact of his research have been acknowledged by numerous awards, including best paper awards and the University of Galway President's Award for Societal Impact in 2017. His team's technology enables intelligent systems for smart environments in collaboration with several industrial partners. He is organiser and programme co-chair of major international conferences, including CIKM 2020, ECML 2018, IEEE Big Data Congress, and European Big Data Value Forum. Edward is co-founder and elected Vice-President of the Big Data Value Association, an industry-led European big data community, has built consensus on a joint European big data research and innovation agenda, and influenced European data innovation policy to deliver on the agenda.

Panel speakers: Prof. Roberta Calegari, Andreas Hauschke, and Henri Sohier

Roberta Calegari is an assistant professor at the Department of Computer Science and at the Alma Mater Research Institute for Human-Centered Artificial Intelligence at the University of

Bologna. Her research field is related to trustworthy and explainable systems, distributed intelligent systems, software engineering, multi-paradigm languages and AI & law. She is the coordinator of the project Horizon Europe 2020 (G.A. 101070363) about Assessment and engineering of equitable, unbiased, impartial and trustworthy AI systems, and part of the EU Horizon 2020 Project "PrePAI" (G.A. 101083674) working on the definition of requirements and mechanisms that ensure all resources published on the AIonDemand platform can be labelled as trustworthy and in compliance with the future AI regulatory framework.

Andreas Hauschke is a project manager for Artificial Intelligence at VDE. He deals with all the requirements that artificial intelligence systems should fulfil in order to be considered trustworthy. His goal is to bring stakeholders together to create recommendations for action, standards and development frameworks. In addition, he can contribute his experience from conformance testing, standardization projects and discussions with a wide range of people and stakeholders.

Henri Sohier is a senior expert in the Design and Validation of Complex Systems at IRT SystemX, a research center dedicated to digital transformation in Palaiseau, France. He coordinates the standardization and certification activities of the Confiance.ai program, a French industrial research program on AI trustworthiness launched by thirteen companies. In 2022-2023, he co-coordinated the CEN-CENELEC group on AI trustworthiness. He earned a PhD from ISAE Supaero in 2014 and is an INCOSE Certified Systems Engineering Professional.

Challenge questions for Session 1

1. How AI will/should be regulated, including the AI Act?
2. How AI self-regulatory tools (AI Labels in particular) will/should be developed, used, and updated as AI systems evolve (i.e., generative AI)?
3. In your opinion, what are the privacy, security, and legal concerns associated with self-regulation vs. third-party audit, and how can they be addressed?
4. What do you think are the implications of the latest developments and use of trust labels on our fundamental rights, democracy, and society?

Outcome of Session 1

Experts provided comments and input that are important to the progress and help inform next steps for T3.3. In particular, the experts opinions on self- and third-party regulation, Trust labels communication techniques, VDE trust label methodology, and automation of labelling help clarify some of the doubts we had in T3.3.

Specific input from Session 2 – AI Externalities:

Skills, Ethical, and Societal Externalities of ADR session was dedicated to identifying the factors that affect the acceptability and trustworthiness of ADR technologies. Discussions during the panel delved into the societal and ethical dimensions of ADR, exploring the challenges and opportunities presented by these technologies with the ultimate goal to provide recommendations for the improved implementation of these innovative technologies.

Session moderator: Prof. Fredrik Heinz

Dr. Fredrik Heintz is a Professor of Computer Science at Linköping University, Sweden. Head of Division of Artificial Intelligence and Integrated Computer Systems (AIICS) and the Reasoning and Learning lab (ReaL). Research focus is AI especially Trustworthy AI,

autonomous systems, and the intersection between machine reasoning and machine learning. Director Wallenberg AI and Transformative Technologies Education Development Program (WASP-ED), Director Graduate School of the Wallenberg AI, Autonomous Systems and Software Program (WASP), Coordinator of the TAILOR ICT-48 network developing the scientific foundations of Trustworthy AI, VP AI Research Adra, and President Swedish AI Society. Fellow of the Royal Swedish Academy of Engineering Sciences (IVA).

Panel speakers: Josefin Rosén, Colin van Noordt, Rafia Inam

Josefin Rosén has 20 years of experience in AI and Advanced Analytics and holds a PhD in Chemometrics from the Faculty of Pharmacy at Uppsala University. She is passionate about Trustworthy AI, and she is committed to ensuring that organizations are able to operationalize AI that is fair and transparent, from data to decision.

Colin van Noordt is a PhD Researcher at the Ragnar Nurkse Department of Innovation and Governance at Tallinn University of Technology in Tallinn (TalTech), Estonia. His PhD thesis focuses on the public value created using Artificial Intelligence technologies within public services. In combination with his PhD, Colin was working as an External Expert for the AI Watch team of the European Commission, contributing to the research activities on the use of AI within public services.

Rafia Inam is a senior research manager at Ericsson Research and Adjunct Professor at KTH in research area Trustworthy Artificial Intelligence. She is specialized in automation and safety for CPS and collaborative robots, trustworthy AI, explainable AI, explainable RL, risk assessment and mitigations using AI methods, reusability of real-time software. She won Ericsson Top Performance Competition 2021 on her work on AI for 5G network slice assurance, and was awarded Ericsson Key Impact Award 2020, and Key contributor award 2020.

Challenge questions for Session 2

1. What major groundbreaking applications, relevant to your field, do you anticipate emerging in AI, data, and robotics in the coming two years?
2. What obstacles currently stand in the way of realizing these upcoming applications?
3. What specific innovations do you believe are necessary, in terms of technology, policy, or collaboration, to facilitate the deployment of these applications and overcome the challenges you've mentioned?

Outcome of Session 2 - AI Externalities: Experts provided valuable inside information comments that are important to the progress and help inform next steps for T3.2, in particularregarding future development of ADR-driven technologies and associated struggles. This information confirmed some findings of the task 3.2 and added value to the overall meta-analysis.

Figure 35. Speakers and moderators

Figure 36. Organizers and panel experts at the beginning of the call

Post-event questionnaire and feedback received to date

We have designed a short post-event questionnaire and sent to the participants for their immediate comments and feedback -about the seminar. Below, we show a few comments we have received to date.

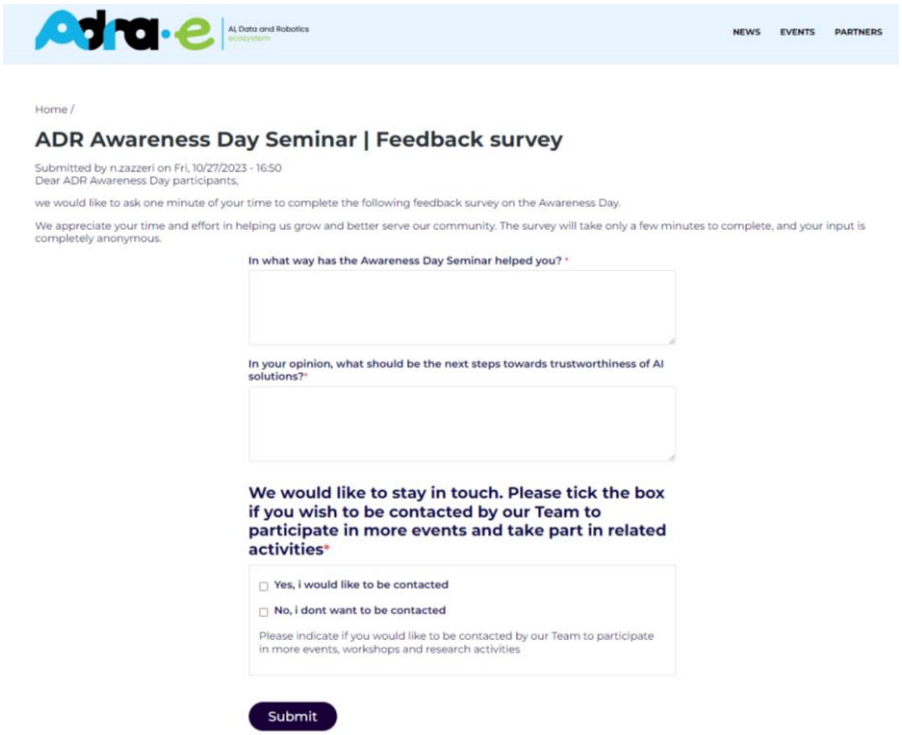

Figure 3714. ADR Awareness Day Seminar post event survey

Comment 1

Submitted on Wed, 11/01/2023 - 10:16

In what way has the Awareness Day Seminar helped you?
Understand current trends in the academic space regarding matters of AI governance and policy orientation from the Global North perspectives.

In your opinion, what should be the next steps towards trustworthiness of AI solutions?
the hidden costs of AI regarding its materiality.

We would like to stay in touch. Please tick the box if you wish to be contacted by our Team to participate in more events and take part in related activities
Yes, i would like to be contacted

Comment 2

Submitted on Mon, 10/30/2023 - 09:32

In what way has the Awareness Day Seminar helped you?
Understanding how to measure trustworthiness.

In your opinion, what should be the next steps towards trustworthiness of AI solutions?
More data to convince people AI is safer (if this is the case).

We would like to stay in touch. Please tick the box if you wish to be contacted by our Team to participate in more events and take part in related activities

Yes, I would like to be contacted

In addition to the above stakeholder engagement activities, in T3.4, we also aim to form an activity group to facilitate selection of a list of trust indicators for consumers (T3.3). In Table 2, we present a list of potential members. Details of the Delphi is presented in D3.2.

Table 2. Potential members of the stakeholder group

Stakeholder types	Country	Institution type and name if possible	Expected contribution	Membership status
Assistant professor	Italy	University of Bologna	Research-based, Human-centred AI, and Assessment and engineering of equitable, unbiased, impartial and trustworthy AI systems	Confirmed
AI project manager	Sweden	The Västernorrland Municipal Association	Public interest and trust concerns, municipalities needs	Pending
Senior legal researcher	Belgium	IMEC (CiTiP - KU Leuven)	Research-based legal expertise	Pending
Canada Research Chair in Governance and AI	Canada	Academia (Carleton University)	Governance aspects of AI solutions	Confirmed
College students	Ireland	Academia (University of Galway)	Student's perception of trustworthy AI and the value trust labels can offer	Confirmed
CEO	UK/ Germany	Association and technical-scientific organization (VDE group)	Label standardization methodology and process	Pending
PhD students	Switzerland	Academia (University of Basel)	Research-based Psychology and Methodology	Confirmed
Research and Policy Analyst	Canada	Responsible AI Institution and Arizona State University	Responsible AI Certification program (methodology), AI Governance, Law, and Policy	Pending

University lecturers (junior level)	Ireland	Academia (University of Galway)	AI use in the classroom and the students perception	Pending
University professors	Ireland	Academia (University of Galway)	Philosophy and Ethics of social AI	Confirmed
EU project manager	The Netherlands	AI Lab (ICAI Netherlands)	Human-centred research in AI, AI-based methods and tools designed to create social impact and promote sustainable growth	Confirmed
Lawyer (in practice)	Greece	Law (Attorney At Law)	Data privacy legals, Data privacy concerns of stakeholders	Confirmed
EU Project manager	Ireland	ADAPT Centre	AI Act knowledge, AI characterization	Confirmed
AI system expert	Ireland	Company (Galvia)	Company specific value sets, regulatory needs or criteria	Confirmed

5. Conclusion

T3.1 and T3.4 of WP3 have a main goal which is to connect and engage with ADR stakeholders with regards to collecting ADR educational materials produced by these stakeholders and to improve their awareness on the trustworthiness of AI solutions. In T3.1, the aim is to provide educational resources and materials developed in Europe for the citizens of Europe. Every individual will be included in improving this initiative and strengthening its quality of the resources. The ADR Awareness Centre is a repository of these resources and materials. Resources will be submitted to the Centre, get validated and published for public use. This task benefits from stakeholder engagement activities carried out in WP3 to disseminate and promote the Centre. T3.4 provides a big support to the whole WP as its aim is to engage with stakeholders via the ADR Awareness Day where we aim to bring experts to discuss around the content produced in WP3. In addition to the Awareness Day, in 2024, we aim to form a AI stakeholder group where we bring European experts and no-experts to discuss AI trustworthiness and how to promote consumer trust on and adoption of AI solution.