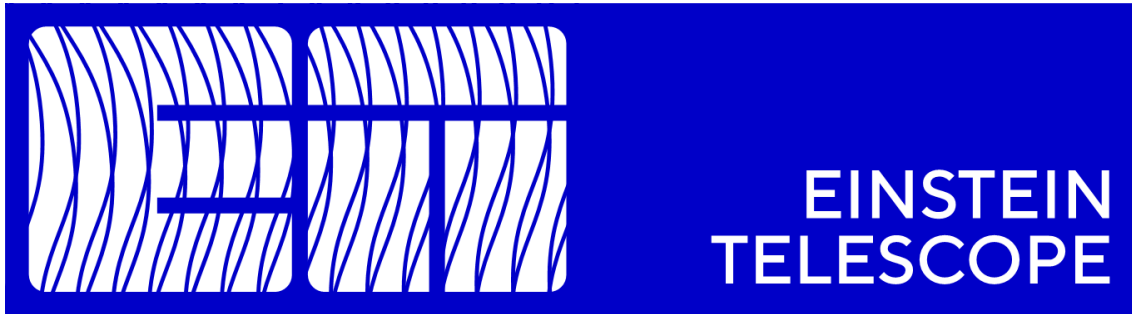




Preparatory Phase for the Einstein Telescope Gravitational Wave Observatory

Deliverable 10.4

Complete bank of graphics and multimedia resources

Lead beneficiary: IFAE

Delivery date: 31 August 2025

Dissemination level: public

Version: 1.0



This project has received funding from the European Commission Framework Programme Horizon Europe Coordination and Support action under grant agreement 101079696.

Table of Content

Table of Content	0
Document Information	2
List of acronyms and abbreviations	3
INTRODUCTION	4
REPOSITORY	5
I. PLANNING	5
Goals for an ET Outreach Repository	5
Key Requirements for the System were Defined in Advance	5
II. DELIVERY	6
Selected System	6
Implementation	6
Finalisation	7
BANK OF GRAPHICS: COLLECTION AND ORGANIZATION OF MATERIALS	8
I. AGGREGATION OF EXISTING MATERIALS	8
II. VISUAL MATERIALS CREATION	8
Promotional Multimedia Content	8
Printed and Digital Promotional Materials	9
Einstein Telescope Visual Identity	10
Infographics on the Einstein Telescope Scientific Case (in progress)	10
Educational materials	11
Appendix	12
ET REPOSITORY SCREENSHOTS	12
History of Changes	15

Document Information

Grant Agreement Number	101079696
Acronym	ET-PP
Start date of project (Duration)	01/09/2022 (48 months)
Document due date	31/08/2025
Authors	Yuliya Hoika (UW), Sascha Rieger (AEI), Isabel Cordero Carrion (UV/IFAE), Livia Conti (INFN), Magda Jakubiak (UW), Gary Hemming (EGO)
Deliverable number	D10.4
Deliverable name	Complete bank of graphics and multimedia resources
WP	10

Version	Date	Author	Description
v 0.1	15/08/2025	IFAE (UV), UW, AEI, INFN, EGO	Creation
v 0.2	26/08/2025	IFAE (University of Valencia), UW, AEI, INFN, EGO	Review by WP10 members (UW, EGO, INFN, Nikhef, AEI, UCAR, NCAC, IFAE, NCBJ)
v 0.3	05/09/2025	IFAE (UV), UW, AEI, INFN, EGO	Review by ET-PP consortium and Mario Martinez
v 1.0	09/09/2025	IFAE (UV), UW, AEI, INFN, EGO	Approved by Mario Martinez

List of acronyms and abbreviations

AEI — Albert Einstein Institute

EGO — European Gravitational Observatory

ET — Einstein Telescope

ETC — Einstein Telescope Collaboration

ETO — Einstein Telescope Observatory

ET-PP — Einstein Telescope Preparatory Phase

INFN — Istituto Nazionale di Fisica Nucleare

MPG — Max-Planck Institute for Gravitational Physics

SM — social media

TDS — Technical Document System

UI — user interface

UV — University of Valencia

UW — University of Warsaw

INTRODUCTION

Work package 10 (WP10): Education, Outreach, and Citizen Engagement is tasked with promoting the groundbreaking scientific potential of the Einstein Telescope (ET) to the broadest possible audience, encompassing the fields of astronomy, cosmology, and fundamental physics. This initiative is coordinated across all member countries of the ET Consortium.

Deliverable 10.4 (D10.4): Complete bank of graphics and multimedia resources aligns with Objective 2 of this WP: *Create, disseminate, and curate ET Consortium communications and outreach materials*. It is also related to Task 10.1: *Establish a network of communications and outreach points of contact, with robust procedures for gathering and disseminating news updates and outreach materials*.

A diverse group of communication experts from various institutions was directly engaged in the completion of D10.4 for the ET-PP project. Key contributors include Isabel Cordero-Carrión (UV, Spain), Livia Conti (INFN in Padova, Italy), Sascha Rieger (MPG-AEI, Germany), Magda Jakubiak (UW, Poland), Yuliya Hoika (UW, Poland), and Dorota Rosińska (UW, Poland).

The essence of D10.4 lies not only in the collecting of communication materials, but in ensuring that these assets are systematically organized, with accurate attribution of sources and authorship, accessible, and reusable by the ET Consortium.

To reflect this dual purpose, the deliverable is structured into two interconnected components:

1. **Creation of a centralized repository** — a functional and user-friendly digital space where visual and multimedia materials related to ET can be stored, managed, and accessed by members of the ET Consortium.
2. Gathering, organizing, and, where necessary, creating **communication materials** to populate the repository. This includes both collecting previously developed resources from partner institutions and new content produced within the scope of ET-PP.

REPOSITORY

The first component of this deliverable focused on creating a resource repository for ET outreach material which should be structured, accessible, and sustainable.

I. PLANNING

GOALS FOR AN ET OUTREACH REPOSITORY

CENTRALISED

All outreach material important for ET should be available at one location.

ACCESSIBLE

The location should be easily found and open to all ET members.

STRUCTURED

The outreach material should be well organised and understandable by both establishing agreed content categories and procedures for uploading.

SEARCHABLE

Content should be searchable and also sortable e.g. by filters.

SUSTAINABLE

Technical support and development resources should be available to maintain the repository (and update content).

KEY REQUIREMENTS FOR THE SYSTEM WERE DEFINED IN ADVANCE

- simple access and clear structure
- long-term (sustainable) solution
- accessibility for all ET = ET Organisation, ET Collaboration & ET-PP
- different access levels to files e.g. Admin, ET-all, ET-PP, Public
- uploads to preconfigured categories/subcategories e.g.: (1) type of resource (e.g. Images, Videos, Graphics (if possible with previews)); (2) topical (e.g. Sites, Instrument Science, Observational Science); (3) intended use (e.g. press kit)
- user navigation by these defined categories: visible in UI as directories and appropriate subdirectories and/or as filter/sorting options
- files must have attached meta-information e.g. copyright information, captions, use restrictions, version, date
- full functionality for all browsers/operating systems

II. DELIVERY

SELECTED SYSTEM

The system selected for the repository is the ET Technical Document System (TDS) for the following reasons:

- new version already has most of the essential features
- is already used by much of the ET Community as repository for important documents
- active development support available, with a commitment by the EGO IT department to deliver the requested missing features
- maintenance & hosting support (security, data backups, upgrades) available as part of the overall TDS infrastructure package
- no strain on ET-PP budget as part of general TDS infrastructure

The ET TDS is a sustainable long-term solution which is already embedded in the ET infrastructure and familiar to large parts of the community.

IMPLEMENTATION

The following features and function for the outreach repository were added into the ET TDS framework:

I. Structure

- i. A new top-level section “Communications & Education” has been established, containing
 - dedicated “Outreach Resources” section
 - press kit section
 - logo & visual identity section
- ii. The Outreach Resources section contains the following subsections on release:
 - Keywords sections: Astrophysics & Astronomy, Interferometers & Instrumentation, Sites, Technology Transfer
 - Separate sections for resource types: Animations, Audio, Documents, Graphics, Images, Printed Material, Videos
- iii. Resource files will be listed in the sections through the assignment to a specific series (the ET TDS equivalent of a tag). A file can be assigned to multiple series and thus be listed in multiple appropriate sections. For example, an image of a laser can be assigned to appear in the sections Images, Interferometers & Instrumentation, and Technology & Transfer.

II. Content features & functions

- i. A new content type “Outreach Material” was established in the TDS system.

D 10.4: Complete bank of graphics and multimedia resource

ii. The following additional, new information can be attached to a file of the “Outreach Material” type:

- copyright information including credits, authors, licenses & use restrictions
- captions & descriptions
- available language versions
- thumbnail previews for images

III. New features for users of the repository

A number of features have been introduced to the TDS to allow easy access to the repository content:

- A new item on the main navigation, opening a list of all outreach content.
- The list includes
 - outreach material information: Credits & authors, licenses & restrictions, descriptions, available languages and thumbnail previews, file type.
 - filter options: by file type, access level and language
 - full text search in all fields

FINALISATION

I. Updating & technical support

- The ET Outreach Repository is at Version 1.0 with the August 2025 release. Feedback from users will be collected, and we plan to implement additional features if generally requested by the ET community in the future.
- Technical support in the form of software updates, security, and regular backups is provided as a regular TDS feature.

II. Collecting & curating materials

- material is already being collected from various partners in the ET project and integrated into the repository (see next section).
- The material included in the repository at the end of the ET-PP project will be the base to continue gathering outreach and communication material.

BANK OF GRAPHICS: COLLECTION AND ORGANIZATION OF MATERIALS

The second component of this deliverable focused on systematically collecting, organizing, and curating a wide range of existing and newly created communication and promotional materials. This effort ensures that the ET community has centralized access to consistent, high-quality visual and multimedia assets aligned with the project's communication strategy (D10.3). The collection compiled by the end of the ET-PP project will serve as a foundation for the continued gathering and expansion of outreach and communication materials.

I. AGGREGATION OF EXISTING MATERIALS

While the central repository infrastructure was under development, we initiated the collection of existing materials from partner institutions involved in the ET-PP project. These included:

- Nikhef (Netherlands)
- INFN (Italy)
- CERN (Switzerland)
- Max Planck Institute for Gravitational Physics (Germany)
- EGO–Virgo (Italy)

This stage involved close collaboration with institutional communication teams to identify relevant assets, clarify usage rights, and organize files in a way that facilitates reuse and adaptation.

II. VISUAL MATERIALS CREATION

In parallel with collecting existing materials, we developed new visual and multimedia content using both human and financial resources allocated within ET-PP. This content was designed to strengthen the visual identity of ET and support outreach and engagement activities across platforms and audiences.

PROMOTIONAL MULTIMEDIA CONTENT

Several multimedia materials were produced to enhance public engagement:

- The [official Einstein Telescope promotional video \(2:36\)](https://www.youtube.com/watch?v=gPZYDwLYTI), publicly available on YouTube, offering an engaging introduction to the [ET technologies](#) (<https://www.youtube.com/watch?v=gPZYDwLYTI>);



- **Video reportage** from ET Symposium promoting scientific collaboration (<https://www.youtube.com/watch?v=ZgvNni0Ob-w&t=5s>);



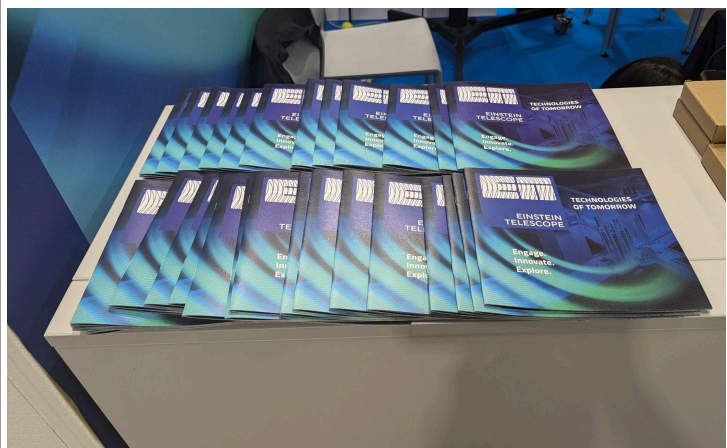
- **Photo albums** from key project events and milestones.

These resources serve both as documentation and promotional content for external audiences, stakeholders, and media.

PRINTED AND DIGITAL PROMOTIONAL MATERIALS

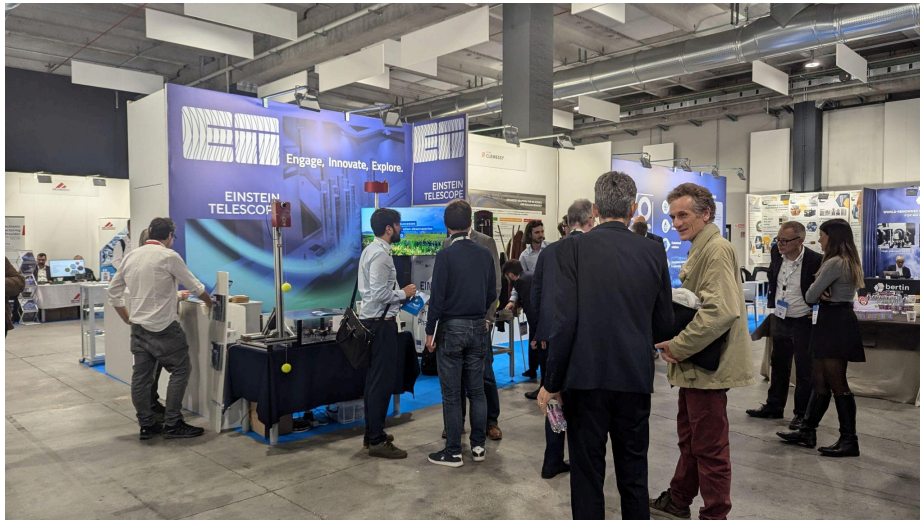
Some materials were produced to support event presence and technology outreach:

- A professionally designed **brochure** (digital and printed) showcasing ET technologies and innovations

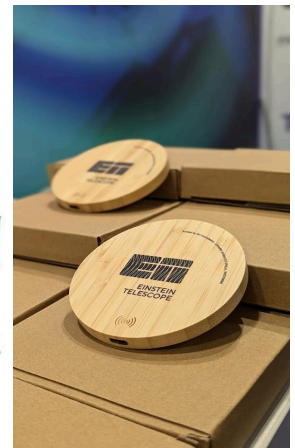


D 10.4: Complete bank of graphics and multimedia resource

- The **ET exhibition booth**, developed and first presented at the **Big Science Business Forum (BSBF)** in Trieste, Italy, in October 2024



- Promotional items (gadgets and conference kits)



EINSTEIN TELESCOPE VISUAL IDENTITY

A coherent and professional visual identity was created, comprising:

- **Brand Book** outlining usage rules and visual principles
- **Logo files** in multiple formats and resolutions
- **Communication templates** for presentations, documents, and digital publication
- **Mockups** for promotional items such as roll-ups, flyers, and banners

These resources ensure visual consistency across ET communications, both internally and externally. All the materials are available for [download](#) on the new ET webpage (D10.2).

INFOGRAPHICS ON THE EINSTEIN TELESCOPE SCIENTIFIC CASE (IN PROGRESS)

As part of D10.4, a strategically coordinated set of **10 high-impact infographics** is being developed to communicate the ET's scientific vision, technological innovation, and societal

relevance. These materials are designed for wide dissemination across outreach, education, and policy channels, including events, educational centres, schools, social media, printed brochures, the ET website, and media communications.

The project serves a **dual purpose**: to educate the public and decision-makers on complex scientific topics in an accessible visual format, and to provide the ET Consortium with versatile promotional tools that can be reused in diverse contexts.

Approximately six infographics will be directly based on chapters from the **Einstein Telescope Blue Book**, with simplified summaries and inputs provided by Einstein Telescope Collaboration teams. Additional topics will include key enabling technologies, sustainability, societal impact, and a general overview of ET's benefits.

Importantly, this initiative actively involves the ET scientific community, **strengthening the connection between researchers and the communication team**. The process of co-developing content fosters a culture of engagement, helping to build a pan-European network of scientists who contribute to communication and outreach efforts — a key strategic goal of WP10.

A procurement process was conducted in July 2025, and the Italian studio Tecnologia & Innovazione was selected to produce the infographics in a consistent visual style. The series is expected to become a cornerstone resource for ET's long-term outreach and educational strategy. The estimated deadline to finalise this project is the end of October 2025.

EDUCATIONAL MATERIALS

We have begun collecting teaching methodologies, study plans, and course outlines used across different consortium institutions to educate students on gravitational physics and, in particular, the Einstein Telescope. In addition, we are gathering resources designed to engage other key audiences, including schools, teachers, and young science enthusiasts.

These materials are not only valuable for sharing knowledge and best practices within our community, but also for inspiring and equipping educators to introduce complex scientific concepts in accessible and engaging ways. By pooling the collective expertise of our consortium, we create a richer and more diverse set of tools that can be adapted to different educational contexts and cultural environments.

Once compiled and reviewed, all resources will be added to the repository, where they will be openly available to other members of the community. This will help avoid duplication of effort, encourage collaboration, and ensure that innovative teaching ideas can be reused, improved, and scaled across our network.

Appendix

ET REPOSITORY SCREENSHOTS

1. File list view for general user of the outreach repository

ET Docs

All Outreach Materials

The following outreach materials are available in the Einstein Telescope document system.

Filter & Search

Search in all fields:

Filter by Access Level: All Access Levels

Items per page: 25

Filter by Language: All Languages

[✖ Clear All Filters](#)

Looking for publicly accessible outreach materials?
Visit the [Public Outreach Materials](#) page to view materials available without authentication.

Showing 1-17 of 17 documents

Thumbnail	Document Code	Access Level	Title	Credits & Authors	Licenses & Restrictions	Captions & Descriptions	Languages	Publication Date	View
	ET-0393A-25	ET	Booklet Einstein Telescope: Technologies of Tomorrow	-	-	-	None specified	2025-08-01	View
	ET-0392A-25	ET ET-INFRA-DEV	Exhibition Booth Wall	-	-	-	None specified	2025-08-01	View
	ET-0391A-25	ET PUBLIC	Promo Video "Einstein Telescope: Technologies of Tomorrow"	-	-	-	None specified	2025-08-01	View
	ET-0390A-25	ET ET-INFRA-DEV PUBLIC	ET Symposium promo video	-	-	-	None specified	2025-08-01	View
	ET-0389A-25	ET PUBLIC	Group photo: XIII ET Symposium in Cagliari (8-12 May 2023)	-	-	-	None specified	2025-08-01	View
	ET-0388A-25	ET PUBLIC	Group photo: XII Einstein Telescope Symposium in Budapest (7-8 June 2022)	-	-	-	None specified	2025-08-01	View
	ET-0387A-25	ET PUBLIC	Group photo: 2d ET Annual Meeting in Orsay (14-17 November 2023)	-	-	-	None specified	2025-08-01	View
	ET-0386A-25	ET PUBLIC	Group photo: XV ET Symposium in Bologna (26-30 May 2025)	-	-	-	None specified	2025-08-01	View

apps.et-gw.eu/tds/?c=outreach

D 10.4: Complete bank of graphics and multimedia resource

2. View of an example file showing additional information for outreach files

ET Docs

[View all documents](#)

Artists impression of ET Underground GW Observatory

File(s)

ET-0379A-25.png (5.7 MB)

Document type

Outreach materials

Author(s)

Marco Krahn et al.

Code

ET-0379A-25

Code issue time/date

01:10, Tuesday the 22nd of July, 2025

Release created by

sascha.rieger

Viewable by

ET

Referral URL

<https://apps.et-gw.eu/tds/ql/?c=18110>

Series

[Communications & Education](#) [Outreach Resources](#) [Images](#)

Outreach material-specific information

Credits and authors

© NIKHEF

Licenses and use restrictions

--

Captions and descriptions

The Einstein Telescope ET is a European planned Gravitational Wave Observatory of the 3rd generation.

Languages

No languages specified

Create new release

Edit release metadata

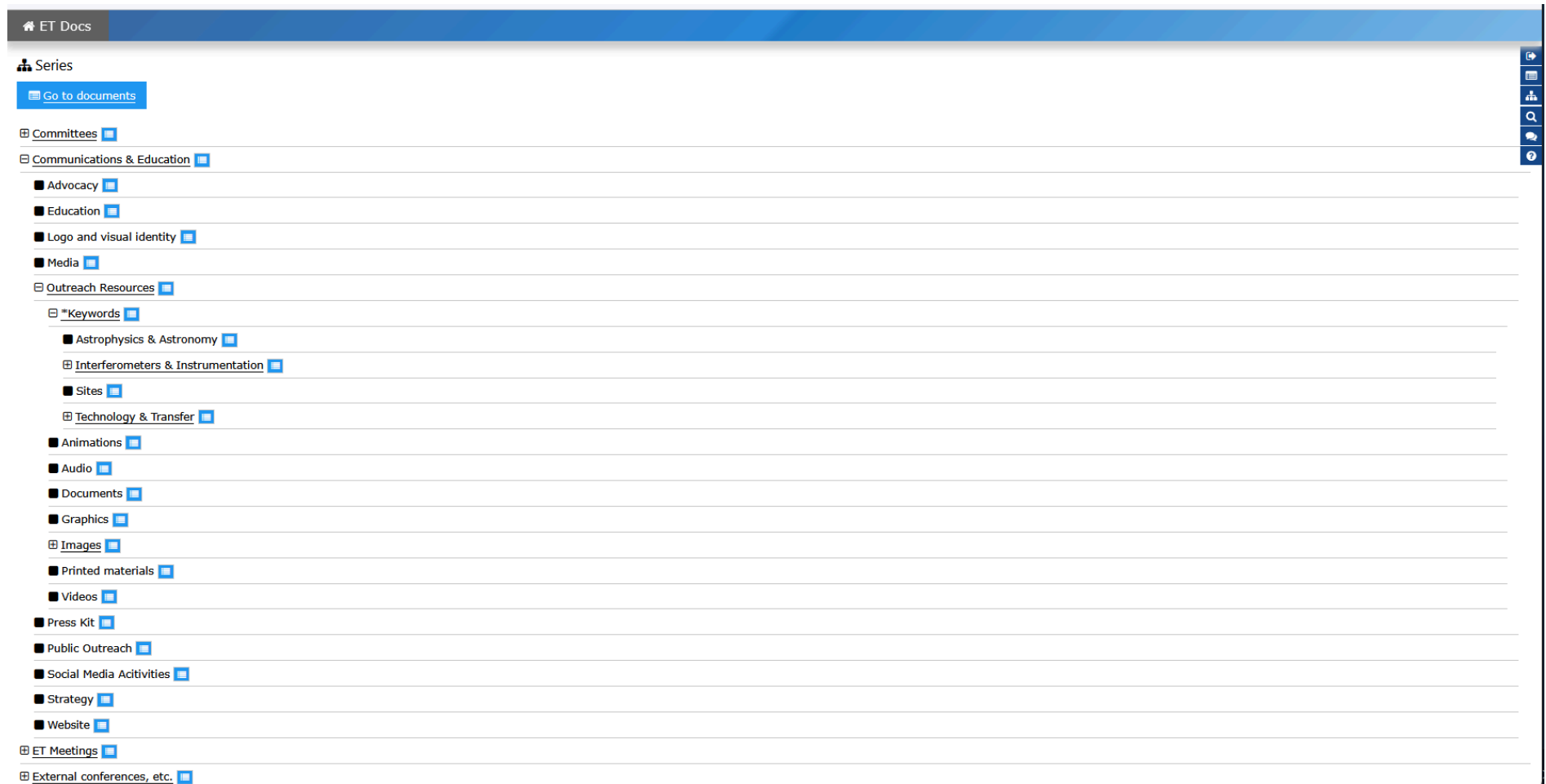
Add files to this release

Add Outreach Material details

Document history

ID	Date/Time	By	Series	Details
7366	01:14 22/07/2025	sascha.rieger	-	Outreach materials added
7365	01:12 22/07/2025	sascha.rieger	-	Main file added to document: ET-0379A-25_ArtistsImpressionOfETUndergrou.png
7364	01:10 22/07/2025	sascha.rieger	Communications & Education Outreach Resources Images	Series associated to document
7363	01:10 22/07/2025	sascha.rieger	-	Viewable by ET associated to document.
7362	01:10 22/07/2025	sascha.rieger	-	Release 'A' created

3. Repository structure in the TDS



History of Changes		
Version	Publication date	Change
1.0	09/09/2025	Initial final version