

Milestone 10.1: Analysis report on the performance and fitness of the internal communication

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1. Introduction

The objectives of ACTRIS Implementation project (ACTRIS IMP) are based on the overall ACTRIS implementation phase objectives, which aim at elevating ACTRIS to a new level of maturity and set the required coordinated structure for coherent implementation actions to be performed at both the national and European level.

In order to reach this level of maturity, it is critical that ACTRIS sets in place a coordinated and coherent strategy regarding how the information is distributed within and outside ACTRIS. It is thus timely to analyse and understand how the communication strategy is implemented by all parts of ACTRIS.

This milestone is part of ACTRIS-IMP WP10 "ACTRIS communication and public relations". The main objective of this work package is to identify and develop strategic and efficient communication practices that are essential for ensuring regular communication flows within ACTRIS and promoting ACTRIS as a global research infrastructure in the research and innovation landscape. **This document aims at reviewing**

the internal communications assets which are already in use and assessing their performances during the first ten months of the ACTRIS IMP project. Furthermore, the document aims at identifying new approaches and means to strengthen ACTRIS internal communication.

This report is the first step towards the development of the updated version of ACTRIS internal communication strategy. The strategy will provide a cohesive approach to all ACTRIS members and it will take in consideration the distributed structure of ACTRIS, which, involving Central Facilities, National Facilities, and other internal stakeholder groups, adds an extra level of complexity that should be carefully considered. It is ultimately fundamental that ACTRIS members adopt the recommended approach for ACTRIS outreach to be successful. Therefore, internal communication is a crucial part for the success of ACTRIS Communication Strategy.

This report is a living document: we will periodically evaluate our internal communication assets and strategy and, accordingly, the document will be enriched and updated throughout the project lifetime.

2. Internal communication assets currently in use

ACTRIS is moving towards the next level of activity requiring a coherent and unified approach. Therefore, there is a need to strengthen the communication flow between ACTRIS components: ACTRIS Central Facilities and National Facilities, as well as within the ACTRIS community to ensure the efficient implementation of actions and information transfer.

ACTRIS IMP aims at identifying and implementing efficient methods and tools to enhance the existing communication practices that are essential for ensuring seamless internal communication. The term internal communication is used to indicate the communication within ACTRIS (ACTRIS IMP project beneficiaries, ACTRIS National Contact points, Interim ACTRIS Council, RI committee, Task forces, etc.). Internal project communication has been partly organized within the management Work Package (WP11) to ensure that the project runs smoothly and achieves its overall objectives. Optimal communication between the ACTRIS IMP beneficiaries is achieved via regular e-mails, virtual meetings, the project website, and dedicated workshops for the networking and joint research activities. Regular virtual meetings are organized to reinforce the communication flow within and between the work packages, RI committee and various established working groups.

A major communication tool is the ACTRIS website that has been developed in ACTRIS PPP, ACTRIS-2 and EUROCHAMP-2020. The ACTRIS website represents the main tool for promoting effective communication within ACTRIS. During the 2020, several cyberattacks mined the reliability of the website. ACTRIS Head Office opened a procurement process and hired a professional company to upgrade and enhance its web portal. The ACTRIS website renewal project kicked off on 7 September 2020 and is expected to be carried

out until the end of 2021. During the requirement gathering project phase, the outcomes of the assessment of internal communication were included in the project requirements. The new ACTRIS website will be launched by 31.12.2020. Until then, ACTRIS website will be temporary moved to a simple and lighter website version, which offers user limited functionalities. ACTRIS community has been timely informed and regularly updated about this transitional process. The new ACTRIS website will have both open and password protected areas (intranet). The password protected area will contain working documents such as progress reports related to deliverables and draft annual project reports. It will serve for the exchange of documents and data, while the public area will host the project description, major outcomes and publications, and information related to outreach activities. The website will also approach key stakeholders with tailored user journeys and content. ACTRIS IMP will continue to elaborate the ACTRIS website in second phase (2021) particularly connecting the platform enabling the single access to ACTRIS services, ACTRIS Catalogue of Services, the Science and User Forum Platform, and ACTRIS Help Desk.

3. Analysis report

The performance and fitness of ACTRIS internal communication was assessed via two activities:

- ACTRIS internal communication survey, and
- Interviews with Central Facilities about ACTRIS information system.

3.1. ACTRIS internal communication survey

The ACTRIS Internal communication survey was launched in September 2020. The questionnaire is appended to this document as Annex I.

The survey was delivered to the following ACTRIS actors (in total 110 recipients):

- ACTRIS Central Facility Leaders;
- ACTRIS Central Facility Unit Leaders;
- ACTRIS National Contact Points;
- ACTRIS National Facility Primary Investigators.

The survey response rate was 25%. The survey consisted in 3 sections questioning recipients on ACTRIS internal communication tools and means; outreach tools and means; and visual identity. The questionnaire provided useful insights for the improvement of the current internal communication and sense of engagement in ACTRIS between ACTRIS components. The representation of the survey respondents is shown in Fig.1.



Figure 1. ACTRIS Internal communication survey representation. Note: some respondents have multiple roles within ACTRIS. ACTRIS National Facility Primary investigators were the most responsive group followed by ACTRIS Central Facility Unit leaders. Respondents could choose more than one answer. The number of respondents to the question was 28. Overall, the survey response rate was 25%.

3.2. Survey's main outcomes

1. Focus on key assets to strengthen ACTRIS internal communication

ACTRIS website, dedicated webpages to ACTRIS CFs and ACTRIS Newsletter are indicated as the top-3 relevant tools for internal communication. Other electronic channels that were indicated relevant for ACTRIS internal communication were National Websites (webpages promoting ACTRIS within their countries, usually in native language and managed independently yet in coordination with ACTRIS Head Office), 8%, electronic bulletins, 6%, and e-mails with 5%. It has brought to ACTRIS Head Office's attention that additional mailing lists might be needed in order to foster internal communication at different levels (e.g. an actris-imp project mailing list for disseminating information regarding updates and progresses of the project). The survey participants also indicated that meetings, either virtual or face-to-face, are non-negligible for internal communication.

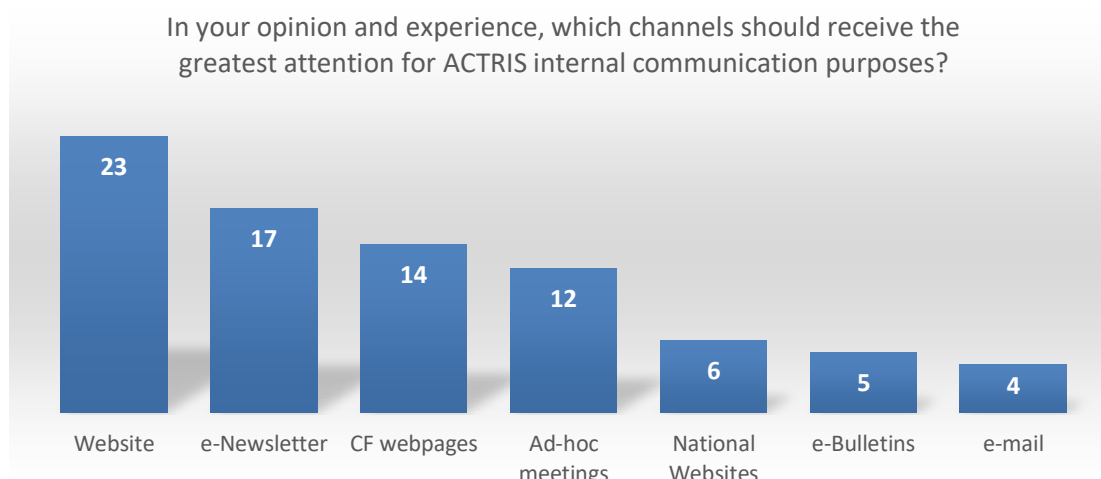


Figure 2. Responses of question 2 of the survey. Respondents could choose more than one answer. The number of responded to the question was 28. Overall, the survey response rate was 25%.

2. Introduce collaborative workspaces to maximize work efficiency and organization.

Generally, there is a high interest and willingness to adopt collaborative workspace. The majority of the survey respondents (81.5%) indicated to use collaborative workspaces and 34.8% of the survey respondents use collaborative workspace on daily basis. (Fig.3)

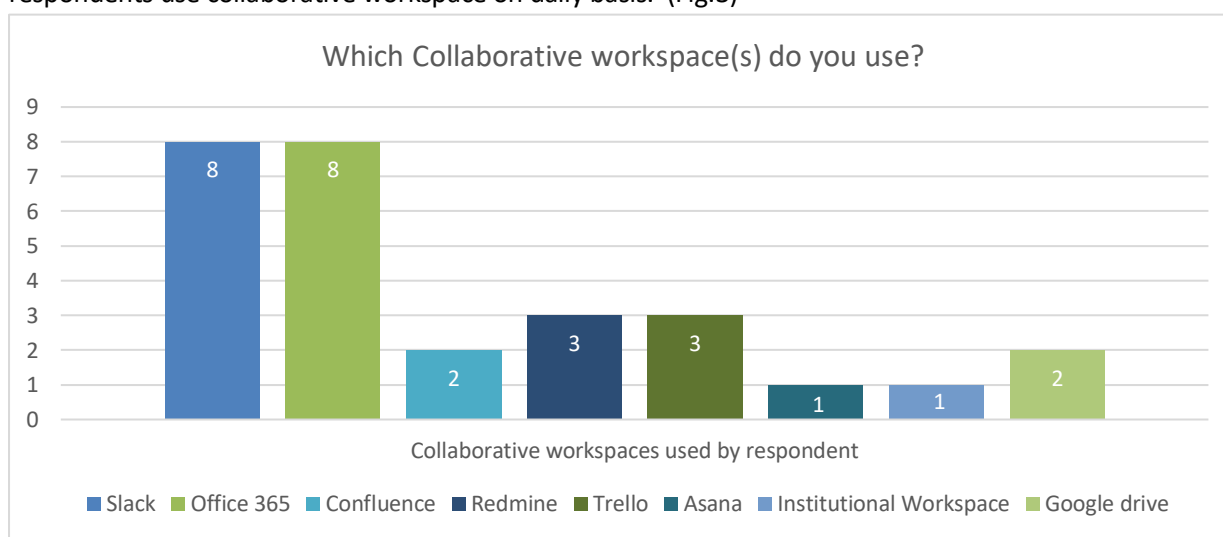


Figure 3. Responses from survey question no.7. Respondents could choose more than one answer. The number of responded to the question was 23. Overall, the survey response rate was 25%.

The survey revealed that the survey respondents are satisfied with the organization of ACTRIS project-related documents which is clearly structured; contrarily, the organization of ACTRIS working documents could be improved: they might belong to more than one category, stored in multiple places, thus presented in a fragmentary approach (Text elaborated based on answers from Q.10).

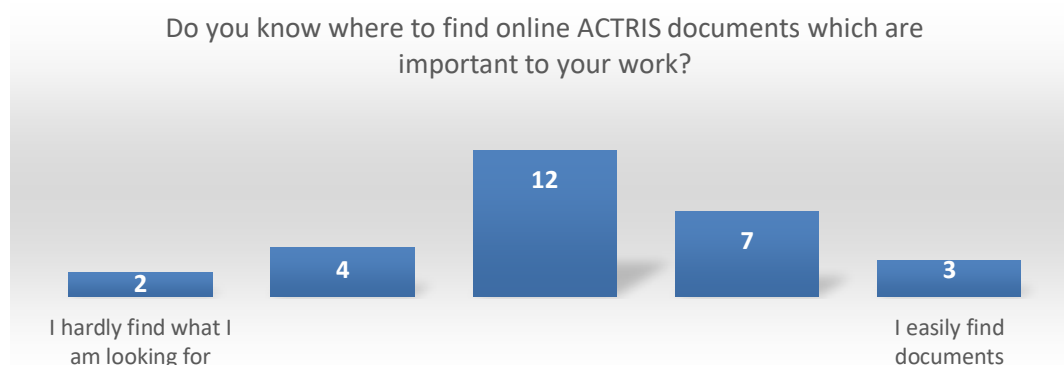


Figure 4. Answers from survey question no.8. The number of responded to the question was 28. Overall, the survey response rate was 25%.

3. The success of ACTRIS outreach is a community effort.

ACTRIS has a great potential in connecting with a diversity of networks at European and International level (e.g. ENVRI, WMO, SDSWAS, E-shape, CAMS, COST action, GAW, CERN, EMPIR, NDACC) and at national level (e.g. country institutions and organizations, research and environmental ministry and authorities, ACTRIS-country community). The text is elaborated from the answers collected from question 15. It should be emphasized how vital is to promote, contribute, and track any ACTRIS-related communication and disseminations activity.

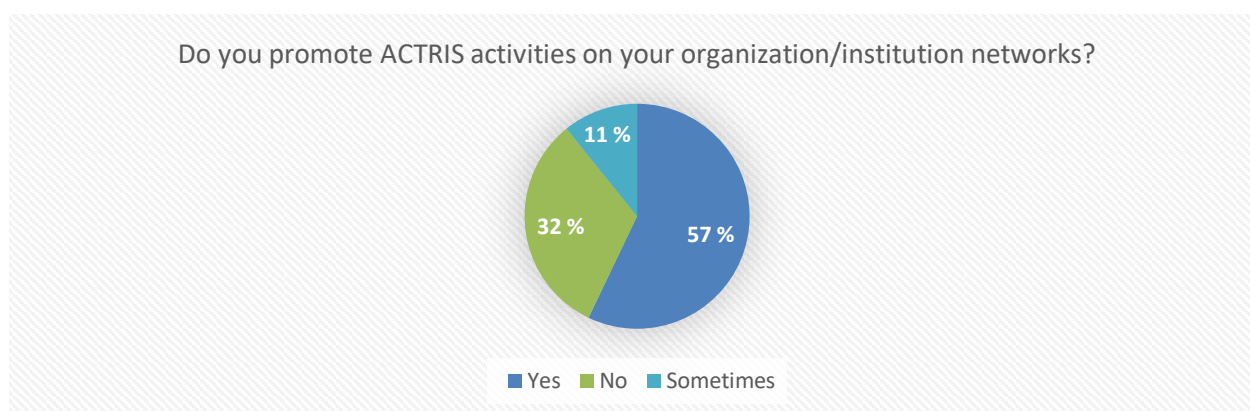


Figure 5. Answers from survey question no.14). The number of responded to the questions was 28. Overall, the survey response rate was 25%.

Currently, approximately 57% the respondents are actively promoting ACTRIS activities within their own organization/institution networks (Fig. 5) reaching out to key stakeholders (Fig. 6).

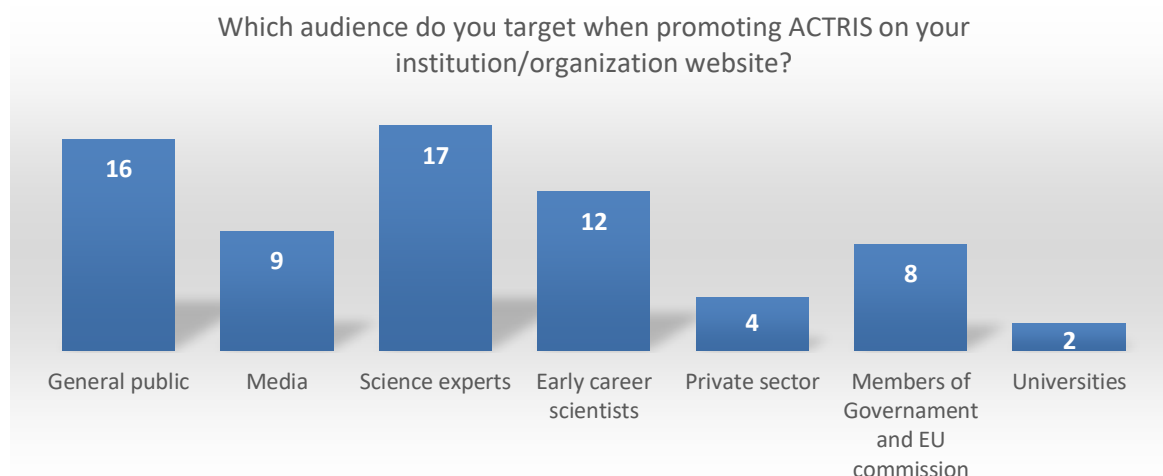


Figure 6. Answers from survey question no.19. Respondents could choose more than one answer. The number of responded to the questions was 22. Overall, the survey response rate was 25%.

Overall, there is a good engagement in reporting the communication and dissemination activities related to ACTRIS and independently organized by ACTRIS internal stakeholders (Fig.7).

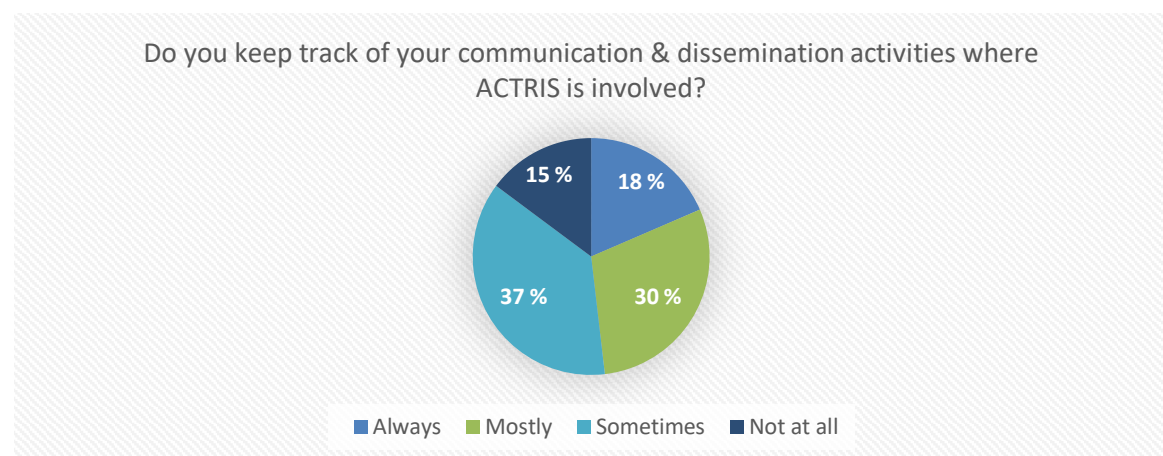


Figure 7. Answers from survey question no. 16. The number of responded to the questions was 27, respectively. Overall, the survey response rate was 25%.

4. Invest on ACTRIS representatives to act as ACTRIS spokespersons.

There is a general request to have ready-made material to use for different purposes and/or engage different audiences (this is the outcome of D10.2 “Creation of dedicated communication portfolio”). ACTRIS outreach material should emphasize ACTRIS branding identity.

3.3. Interviews with Central Facilities about ACTRIS information system

ACTRIS Central Facility leaders and key personnel had the opportunity to express their needs regarding information and communication technology (ICT) and management systems during eight dedicated interviews (one for each CF) hosted by ACTRIS Head Office and held between April-June 2020.

The interviews focused on the ICT requirements from the Central Facilities with the overall objective to better understand what the options and preferences would be for integrating institutional information systems within the future ACTRIS ICT architecture.

A common format was adopted to conduct the interviews with the Central Facilities key persons, and it is included in this document as Annex II.

3.4. Interviews’ main outcomes

Online tools/platforms shall facilitate:

- **Interaction between the Units of each CF:**
 - common scheduling,
 - tracking activities and tasks,
 - collaborative authoring on reports/documents.
- **Interaction between CF and NFs:**
 - registration of a new NF
 - scheduling of operation support activities
 - communication with PIs
 - access to documentation (both from CF & NF point of view) and possible collaboration
- **Interaction with Data Centre** concerning (at least)
 - flagging instruments,
 - optimizing parameters for data processing
 - lists of data publications/metadata offered by DC
- **Interaction with Head Office**
 - monitoring, reviewing, scheduling and reporting on access to services (SAMU)

- reporting on activities and costs
- labelling interface
- Coordination
- **Communication to the public**
 - announcements
 - success stories
 - opportunities
- **Interaction with Industry/Agencies:**
 - identification of needs
 - consultancy
 - contracts
 - patents
 - payments.

4. Recommendation

The activities described in Sect.3 indicated the following topics and corresponding recommended actions to boost ACTRIS internal communication:

Topic 1: Website	
Action	Status
ACTRIS website shall provide an improved system for organizing working document to specific working groups and a way to track ACTRIS activities.	ACTRIS is currently developing a new ACTRIS website. The new platform will feature an intranet which offers ACTRIS internal Stakeholders a dedicated repository space to organize cohesively documentation (e.g. meeting material, minutes), foster direct interaction between ACTRIS Components (CFs and NFs) as well as working groups (e.g. Task Forces). The website will also feature a Calendar to present the planned activities. The task is currently on-going and part of the ACTRIS website renewal project and it will be delivered by the end of 2020.
Topic 2: Web presence	
Action	Status
An ACTRIS common webpage template shall be made available for the ACTRIS Central Facilities	The task is currently on-going and part of the ACTRIS website renewal project and it will be

(especially for Topical Centres), which will be independently provide contents.	delivered by the end of 2020. An on-going interactive dialogue between ACTRIS IMP Task 10.1 leaders and ACTRIS Central Facility leaders and key persons steers the development of the common webpage frame.
Topic 3: ACTRIS common management software and web conferencing tool	
Action	Status
A common tool should be adopted within ACTRIS Community, ideally with a single license.	The request will be taken into consideration especially after the establishment of ACTRIS ERIC (estimated in 2021).
Topic 4: Invest on ACTRIS spokespersons	
Action	Status
Portfolio of outreach material targeting ACTRIS stakeholder material shall be available	The task is part of ACTRIS IMP WP10 – D10.2 which will output ad-hoc portfolio material to connect with ACTRIS key stakeholders. The portfolio is due by Month 16 (April 2021).

5. Annexes

Annex I

ACTRIS Internal Communication Survey

The survey outcomes will be compiled into a report to assess the performance and fitness of the internal communication. Such analysis report will provide useful insights for the improvement of the current internal communication and sense of engagement in ACTRIS between ACTRIS components.

The survey consists in sections asking a series of questions about internal communication tools and means; outreach tools and means; and visual identity. Please feel free to co-operate with colleagues when answering the questionnaire, if you think it is necessary. Your participation in the survey is fully voluntary, and you may pass on any question that makes you feel uncomfortable. The survey should take approximately 10 minutes.

The survey outcomes will be compiled into a report to assess the performance and fitness of the internal communication. Such analysis report will provide useful insights for the improvement of the current internal communication and sense of engagement in ACTRIS between ACTRIS components.

You are encouraged to ask clarifications at any time to Giulia Saponaro (giulia.saponaro@fmi.fi).

Survey representation

1. 1. Are you answering this survey as

Check all that apply.

- ☐ ACTRIS Central Facility Leader
- ☐ ACTRIS Central Facility Unit Leader
- ☐ ACTRIS National Contact Person
- ☐ ACTRIS National Facility Primary Investigator

Internal
communication
tools and
means

Internal communication refers to the communication between ACTRIS components, e.g between Central Facility leaders, between National Facility PIs, between ACTRIS Head Office and Central Facilities/National Facilities.

2. 2. In your opinion and experience, which channels should receive the greatest attention for ACTRIS internal communication purposes (e.g. updates on progresses, activities, meetings, decisions)? Please select max. 5 from the list

Check all that apply.

- ☐ ACTRIS website
☐ ACTRIS national webpage
☐ ACTRIS CF webpage
☐ ACTRIS Newsletter
☐ Bulletins
☐ Ad-hoc Meetings

Other: ☐ _____

3. 3. Generally, in your work life, what kind of tools do you use for project management?

4. 4. Generally, in your work life, what kind of tools do you use for remote meetings?

5. 5. Generally, in your work life, do you use any online collaborative workspace?

Mark only one oval.

- ☐ Yes
☐ No

6. 6. If you are part of a collaborative workspace, how often do you use it?

Mark only one oval.

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Other: _____

7. 7. If yes, which collaborative workspace(s)?

Check all that apply.

- ☐ Slack
- ☐ Confluence
- ☐ Redmine
- ☐ Office 365
- ☐ Asana
- ☐ Trello
- ☐ Others

Other: ☐ _____

8. 8. Do you know where to find online ACTRIS documents which are important/relevant to your work?

Mark only one oval.

	1	2	3	4	5	
I hardly find what I am looking for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I easily find any document

9. 9. Is ACTRIS document hierarchy clear?

Mark only one oval.

☐ Yes☐ No☐ Partially

10. 10. If you selected No or Partially, please explain

11. 11. Do you feel engaged within ACTRIS?

Mark only one oval.

	1	2	3	4	5	
Not all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very much

12. 12. Do you feel well represented within ACTRIS?

Mark only one oval.

1 2 3 4 5

Not at all ☐ ☐ ☐ ☐ ☐ Very well

13. 13. Please use this space for any additional comment regarding ACTRIS internal communication tools and means.

Skip to question 14

Outreach tools and means

This section focuses on channels used to raise awareness about ACTRIS among ACTRIS stakeholders.

14. 14. Do you promote ACTRIS activities on your organization/institution networks?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Sometimes

15. 15. If yes, which networks?

16. 16. Do you keep track of your communication and dissemination activities where ACTRIS is involved?

Mark only one oval.

- ☐ Always
- ☐ Most of the time
- ☐ Sometimes
- ☐ Not at all

17. 17. Do you periodically report on the above mentioned activities to ACTRIS HO?

Mark only one oval.

- ☐ Yes
- ☐ Most of the time
- ☐ Sometimes
- ☐ Not at all

18. 18. Do you promote ACTRIS on your own institute/organization website?

Mark only one oval.

- ☐ Yes
- ☐ No

19. 19. If yes, what is the target audience of your website? Please select as many as are relevant.

Check all that apply.

- ☐ General public
☐ Media
☐ Science experts
☐ Early Career scientists
☐ Private sector
☐ Members of Government and European Commission Representatives

Other: ☐ _____

20. 20. Do you have in place a dedicate ACTRIS website/webpage/section?

Mark only one oval.

- ☐ Yes
☐ No

21. 21. If yes, please provide the url here:

22. 22. Which language(s) is your website published in?

23. 23. If no, are you planning to implement a section/website dedicated to ACTRIS?

Mark only one oval.

- ☐ Yes
☐ No

24. 24. Do you receive ACTRIS Newsletter?

Mark only one oval.

☐ Yes

☐ No

25. 25. If yes, do you find it useful?

Mark only one oval.

	1	2	3	4	5	
Not useful at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very useful

26. 26. Do you promote ACTRIS newsletter within your own networks?

Mark only one oval.

☐ Yes

☐ No

☐ Sometimes

27. 27. Which communication channels do you think are the most important for ACTRIS outreach? Please select max. 5 from the list.

Check all that apply.

- ☐ Posts on website
- ☐ Newsletter
- ☐ Twitter
- ☐ Press releases
- ☐ Discussion papers
- ☐ publications on academic journals
- ☐ Workshops organized by me/my organization
- ☐ Events organized by me/my organization
- ☐ Presentations at expert conferences
- ☐ Presentations at academic conferences
- ☐ Outreach material (e.g handbook, flyers, brochures,...)

Other: ☐ _____

28. 28. Please use this space for any additional comment regarding ACTRIS outreach tools and means.

Skip to question 29

ACTRIS Visual Identity

29. 29. Do you use ACTRIS presentation template?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Sometimes

30. 30. How would you grade ACTRIS presentation template?

Mark only one oval.

	1	2	3	4	5	
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Excellent

31. 31. Do you use ACTRIS document template?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Sometimes

32. 32. How would you grade ACTRIS document templates?

Mark only one oval.

	1	2	3	4	5	
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Excellent

33. 33. Do you use ACTRIS logo?

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Sometimes

34. 34. Do you have access to the templates/logo?

Mark only one oval.

☐ Yes

☐ No

35. 35. Are you aware of ACTRIS motto "Exploring the atmosphere"?

Mark only one oval.

☐ Yes

☐ No

36. 36. If yes, do you use it?

Mark only one oval.

☐ Yes

☐ No

☐ Sometimes

37. 37. Are you aware of ACTRIS Brandbook? ACTRIS Brandbook defines ACTRIS visual style (e.g. logo, motto, colorpalette and typography).

Mark only one oval.

☐ Yes

☐ No

38. 38. Please use this space for any additional comment regarding ACTRIS visual identity.

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Google Forms

Annex II



Information Management Needs - Topical Centres

Scope of Discussion

Time	Topics
00h00 - 00h05	Welcome and Introduction
00h05-00h20	Short introduction to the Topical Centre
00h20-00h40	Topical Centre needs and requirements
00h40-01h00	Specific requirements in respect of websites and web presence
01h00-01h15	Review of the questionnaire on information systems needs and integration
01h15-01h30	Review of requirements identified to date
01h30-01h45	Vision for ACTRIS information management and Topical Centre integration
01h45-02h00	Additional comments, requirements, and views from Topical Centre

Milestones

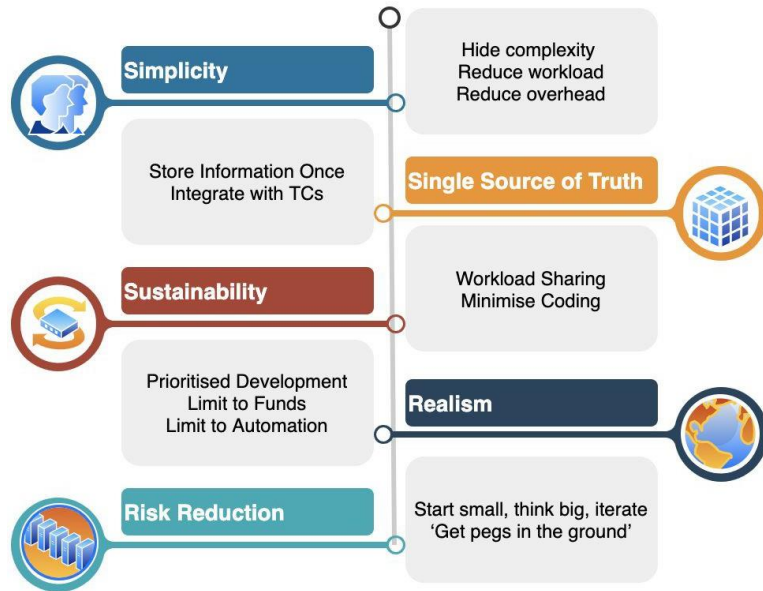
Time Period	Milestones	Deliverables
By 10 April 2020	<ul style="list-style-type: none">• Conclude Contracting• Goals and Objectives Documented	Signed Contract Inception Report, confirming work programme
By End April 2020	<ul style="list-style-type: none">• Participate in Cyprus Meeting• Confirm Vision and Status Quo• Conduct face-to-face interviews with stakeholders and principals at Cyprus Meeting• Complete Status Quo Assessment	Working Draft Report available, with Status Quo Assessment and Vision
By End June 2020	<ul style="list-style-type: none">• Electronic Meetings with Major Facilities• Complete Environmental Analysis• Propose Ideal Solution Options and Advise Best Candidates• Gap Analysis	Update Draft Report with Environmental Analysis and Solution Options
By End Sep 2020	<ul style="list-style-type: none">• Complete Assessment of Implementation Options• Final face-to-face meetings and review	Add Implementation Plans to Draft Report Obtain Reviews Finalise Report

TC Introduction

TC Requirements

Principles

- **Simplicity**
 - Hide complexity from end users
 - Reduce and not increase workload and overhead
- **Single Source of Truth**
 - Whenever possible, store information once only
 - Integrate as best possible with existing TC systems
- **Sustainability**
 - Share workload and knowledge production
 - Reduce reliance on coding and expensive changes
- **Realism**
 - Prioritised, iterative development
 - There is a limit to funds and capacity
 - Everything cannot be automated
- **Risk**
 - Start small, think big, iterate
 - 'Get pegs in the ground'



Checklist

Interactions

- Intra-TC and inter-RPO
- National Facilities
- Within ACTRIS
 - Head Office
 - SAMU
 - Data Centre
 - (Formal) Communications
- Private Industry
- Research Community

Functions

- Scheduling
- Task and Project Coordination
- Collaborative Work
- Data Value Chain/ Processing
- Collaboration/ Outreach/ Consulting
 - Industry
 - Researchers
 - Students
 - General Public
- Publication and Scholarly Activity
- Reporting
- Communication and Web Presence

Survey - Review

Supplemented by User Requirements Survey

Section 1 of 3

Status of Information Systems



Information on the status and use of information (business) systems by ACTRIS project partners and stakeholders.

Our questions are focused on ACTRIS-related needs in addition to those covered by the Data Centre. We would like to understand better what the options and preferences are for integrating institutional information systems with ACTRIS, as required. To do that, we need to know which systems in your environment will require some form of integration with or reporting to ACTRIS systems, and what needs you have identified in this respect.

Email address *

Valid email address

This form is collecting email addresses. [Change settings](#)

<https://forms.gle/N9zmpTe6kHUhGehG9>

Supplemented by User Requirements Survey

Section 1 of 3

Status of ACTRIS

Information on the status of ACTRIS stakeholders.

Our questions are designed to help us understand the current status of ACTRIS, as well as the needs of integration with other systems.

Email address

Valid email address

This form is collected by ACTRIS

Section 2 of 3

User Requirements



A survey of the information systems (business systems) needs of participating institutions. These are systems we need for sharing non-scientific data and information within ACTRIS.

Below, we ask your feedback on the following:

1. Systems Integration: how important is it to integrate facility and institutional systems with ACTRIS systems so that a minimum of rework is needed to monitor and report, and to execute ACTRIS tasks?
2. Functions: which typical processes or services would you regard as priorities for implementation?
3. Workflows: some functions need to be formalised as workflows, especially if they require coordination between actors distributed throughout ACTRIS institutions.

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Supplemented by User Requirements Survey

Section 1 of 3

Status of Stakeholders

Information on the current status of stakeholders.

Our questions are designed to help us understand the current status of stakeholders with ACTRIS, as well as the current status of integration with other systems.

Email address

Valid email address

This form is collected by ACTRIS

Section 2 of 3

User Requirements

A survey of the user requirements for the system.

Below, we ask you to provide information on the user requirements for the system.

1. Systems Integration: A minimum of 1 system must be integrated with ACTRIS.
2. Functions: What functions are required for the system?
3. Workflows: Describe the workflow between actors.

Section 3 of 3

Technical Information

This section will best be answered by an IT specialist in your institution.

Technical: Systems Integration

Depending on needs, it may be required to integrate ACTRIS business systems with facility and institutional systems. The simplest way to do this is usually through a web-based service interface (API). Please let us know whether this is a possibility in your environment.

	Has API	No API	Don't Know
Financial Reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<https://forms.gle/N9zmpTe6kHUhGehG9>

Topical Centre Requirements Identified to Date

General Comments [67], [68]

1. Structure

- a. Complexity of TCs
- b. Inter-Unit liaison and collaboration systems needed, as well as
- c. Intra-ACTRIS (SAMU, HO, DC, CCRES, ...)

2. Operations support:

- a. Some services are predetermined and can be scheduled well in advance (national facility calibration, training), but others (services requested via SAMU) need to be scheduled in a complex environment.
- b. Some activities can be done in parallel, others (best example is NF labelling) have dependencies and needs to be done in a coordinated workflow and integrated into a schedule

3. Existing Procedures

- a. General requirement to manage multiple submissions of documents (such as calibration reports).
- b. Data traceability in respect of QA is an important aspect of procedures, shared responsibility with DC.
- c. There is a need to redesign processes, documentation, templates etc. (This is linked to the Information Systems Project and needs a bit of further discussion).

A-OP: Online Platform for Interactions

#	Element	Description	Reference/ Release
A-OP-01	Unit interaction enablement	Scheduling of events, managing tasks and activities, collaboration on documentation and reports	[67], [68]
A-OP-02	National Facility Interaction	Some procedures and resulting workflows: <ul style="list-style-type: none">• Registration of a new NF/ Removal of NFs• Scheduling operational support• Labelling of National Facilities• Communication with Principal Investigators• Access to documents and possible collaboration• Flagging instruments	[67], [68]
A-OP-03	Data Centre Interaction	At last the following: <ul style="list-style-type: none">• Flagging instruments (this can also be retroactive) -• Optimal parameters for data processing• Lists of data publications/ metadata/ offered by DC	[67], [68]

A-OP: Online Platform for Interactions

#	Element	Description	Reference/ Release
A-OP-04	Head Office Interaction	The following: <ul style="list-style-type: none">• Reviewing, scheduling and reporting on access to services (SAMU)• Reporting on the activities and costs (Head Office)• Labelling interface• Outreach - coordination	[67], [68]
A-OP-05	Interaction with the Public	Communication of <ul style="list-style-type: none">• Announcements (=> Events, News Items, ...)• Success stories (News Items, ...)	[67], [68]
A-OP-06	Industry/ Agencies Interaction	Consultancy, contracts, payments, patents ... these need to be managed, reported, etc.	[68]

A-TU: Topical Centre Use Cases as Systems

#	Element	Description	Reference/ Release
A-TU-01	Scheduling	Scheduling of general events, operational support, calibration, training, SAMU service requests	[67], [68]
A-OP-02	General Task and Activity Management	Some procedures and resulting workflows: <ul style="list-style-type: none">• Registration of a new NF• Scheduling operational support• Communication with Principal Investigators and a Record of Communication	[67], [68]
A-OP-03	Collaboration	<ul style="list-style-type: none">• Co-authoring of documents and reports	[67], [68]
A-OP-04	National Facility Registration	Defined workflow with defined actors	[67], [68]

A-TU: Topical Centre Use Cases as Systems

#	Element	Description	Reference/ Release
A-OP-05	National Facility Labelling	Defined workflow with defined actors <ul style="list-style-type: none">• Announcements (=> Events, News Items, ...)• Success stories (News Items, ...)	[67], [68]
A-TU-06	Communication	News Item publication, success stories, event and other announcements	[67], [68]
A-TU-07	Reporting	A range of KPIs (see following slides)	[67], [68]
A-TU-08	Computing Facility	Centralised, single point of calculation for processing prior to Data Centre submission	[68]

A-TA: Topical Centre Actors

#	Element	Description	Reference/ Release
A-TA-01	TC Head/ Deputy		[67]
A-TA-02	TC Unit Leaders		[67]
A-TA-03	NF Principal Investigator		[67]
A-TA-04	Data Centre	Roles to be defined	[67]
A-TA-05	Head Office	Roles to be defined	[67]
A-TA-06	Other TCs	Roles to be defined	[67]
A-TA-07	SAMU		[67]
A-TA-08	Private Sectors		[68]
A-TA-09	TC Office		[68]

Requirements determined from PPP Documentation

#	Descriptor	Notes	Reference
R-CF-01	Conceptual Model	A conceptual model is implied, linking variables, levels of processing, instruments, protocols, calibration methods, datasets, and the facilities/ sites in which these observations are made. This conceptual model must be shared between scientific and non-scientific systems to provide semantic interoperability.	[62] [64]
R-CF-02	Topical Centre Variables	For each topical centre, the measured variables are defined in detail. This detail can be used to populate a metadata database and vocabulary of observed variables. [64] provides additional detail on NF measurements (mandatory, specialising, optional)	[62] [64] p 63
R-CF-03	National Facility Need, External User Need	Data is provided on the number of national facilities and external users, over time, that will require support (per observed variable).	[62]
R-CF-04	Timeline for Services	A timeline for service and support implementation is provided. This implies a monitoring and evaluation requirement.	[62]

Requirements determined from PPP Documentation

#	Descriptor	Notes	Reference
R-CF-05	Quality Assurance and Quality Control	<p>Each topical centre defines a set of quality assurance and quality control measures. These imply a series of activities and outputs that need to be developed, managed and monitored:</p> <ul style="list-style-type: none">• Standard Operating Procedures• QA criteria and procedures• Instrument-specific calibration• In-house verification tools• Evaluation procedures and plausibility tests• Site performance audits• NF exercises and performance workshops• Data documentation and traceability• Standardisation contributions	[62]
R-CF-06	Knowledge Transfer and Training	<p>Each topical centre provides a range of standard training and knowledge transfer services.</p> <ul style="list-style-type: none">• Operators and scientists• Platform setup at NFs	[62]
R-CF-07	Measurement Technology Improvement	<p>Topical centres provide the following:</p> <ul style="list-style-type: none">• Tests for new instruments/procedures• Improved duty cycles and maintenance• New products and methods development• Instrument synergies and new algorithms	[62]

Some Additional Workflows/Functions

Register and record an event (workshop, training event, stakeholder visit, ...)

Record and publish news items

Register and record publication of non-data outputs (reports, project deliverables, journal articles, training materials, toolsets, protocols, ...)

Define and maintain personnel and topical centre structure, students, postdocs, ...

Define and maintain collaborations, stakeholders, ...

Report on specific KPIs

KPIs: Specific to Topical Centres

P	Topical Centres - Usefulness to Users			
P1	Number of Support Units- QA	No. of operation support units provided to ACTRIS users for quality assurance and quality control	Numeric	
P2	Number of Support Units- Training	No. of operation support units provided to ACTRIS users for knowledge transfer and training	Numeric	
P3	Number of Support Units- Improvement	No. of operation support units provided to ACTRIS users for Improvement of measurement and data processing methodologies	Numeric	
P4	User Satisfaction	Average score of satisfaction received from users - Including utility, fairness and timeliness of the activities for operation support	Numeric	

KPIs: Specific to Topical Centres

X	Topical Centres - Integration			
X1	Participation	No. of participations to ACTRIS committees and boards	Numeric	
X2	Collaborations	No. of activities performed in collaboration with other TCs (joint SOPs, joint workshops, etc.)	Numeric	
X3	Contributions	Average score of satisfaction received from ACTRIS DC for the contribution to documentation and traceability of data products	Numeric	
X4	Readiness and Quality	Average score of satisfaction received from ACTRIS HO for the quality and readiness of the reports	Numeric	

KPIs: Specific to Topical Centres

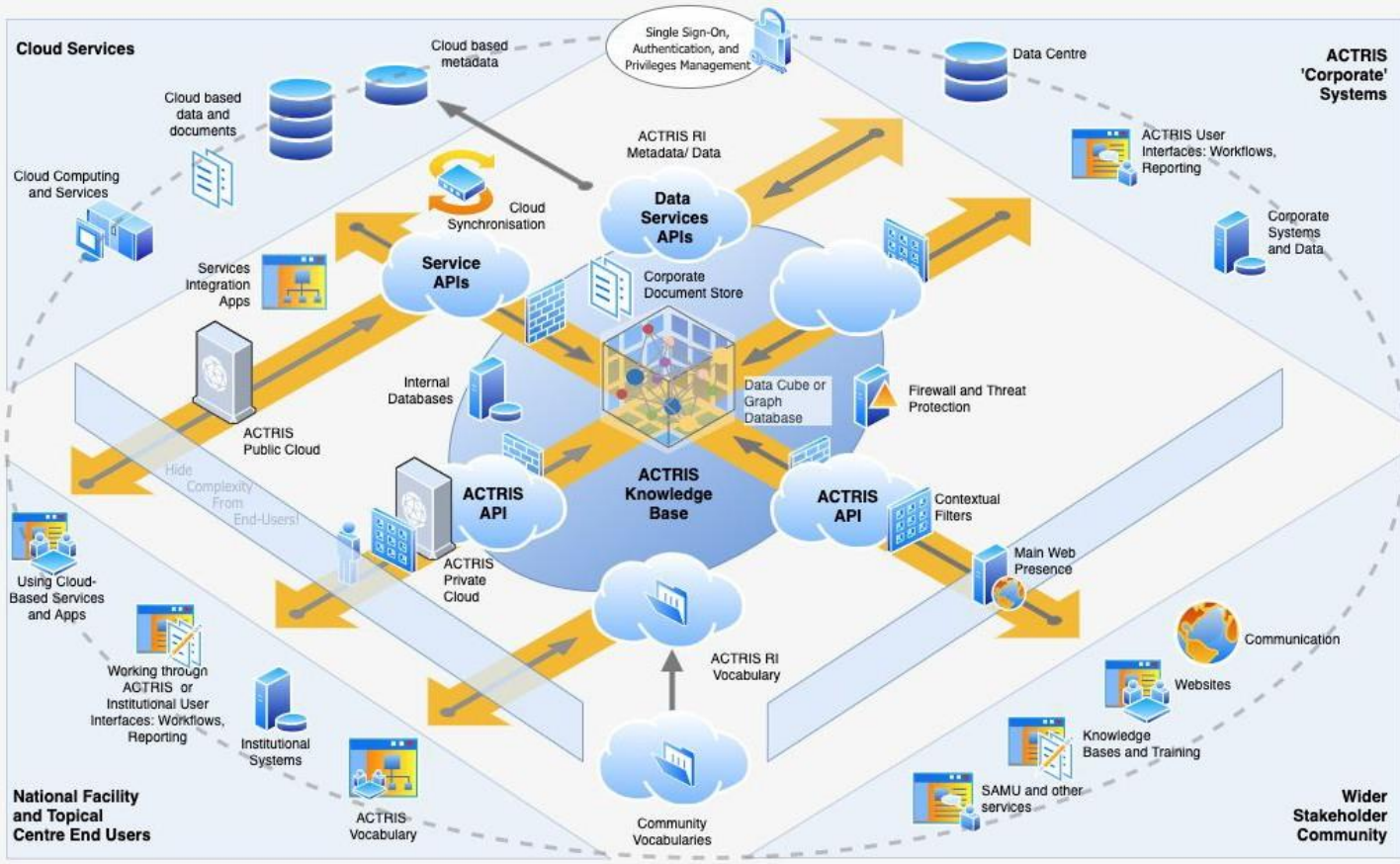
Y	Topical Centres - Technical Impact			
Y1	New Technology	No. of new technological products, methods and algorithms developed/ improved	Numeric	
Y2	Publication	No. of peer-review CF-related papers published	Numeric	
Y3	Academic Activity	No. of CF-related communications at scientific conferences/workshops	Numeric	
Y4	Patents	No. of CF-related patents promoted	Numeric	



Ideas and Work to Date:
ACTRIS
Information/ Knowledge
Management Vision

ACTRIS Information/ Knowledge Systems Blueprint

A distributed knowledge management system that relies to the maximum possible extent on cloud-based, widely used services, captures facts once only whenever possible, and integrates as needed with existing institutional systems. Many knowledge items are unstructured and can be captured as a collection of links and tags, using graph-like databases.



[Click image to view](#)

Use Case Example: 'Persons'

Let's look at an example of data usually kept about people in a research infrastructure. We will **state a number of things that are true** for this use case, and then explain how we use a graph model to satisfy some requirements for content.

1. People can have personal information that has to be managed in a special way, related to their contact details, income, identity, gender, age, and so on. Specifically, we need this information to uniquely identify and authenticate end users, and to store their preferences and log history, and to trace, in a depersonalised way, whether KPI targets e.g. for equality are being met.
2. We can store information about the person's achievements, biography, hobbies, etc. We can have one or more images associated with the person - either in our own environment or URI references somewhere in the web.

Use Case Example: 'Persons'

1. Some people can be employees of the ACTRIS research infrastructure, but they need not be working for the ACTRIS RI full-time, and their employment contracts may be managed by participating institutions.
2. These employees can typically be scientists or researchers, technical staff, managerial staff, or support and administrative staff. Depending on the type of staff, there can be very different managed content associated with a person. Scientists will have publication records and ratings, may have an ORCID, and so on, while administrative staff may be measured on workflow events, such as help desk ticket resolution.
3. Any or all of these persons can be employed in a role in the organisation, sometimes more than one, and the roles can have a structure associated with it. An incumbent can be a successor to another person in such a role (for example the chair of a committee may be succeeded by another).

Use Case Example: 'Persons'

1. Not all of the roles are filled by employees. Sometimes they are filled by collaborators, and sometimes by outsourced contractors.
2. Not all researchers and technical personnel that are involved in service provision, output generation, or project delivery have to be 'internal' - some of them can be long-time or ad-hoc collaborators that are not compensated, or beneficiaries of ACTRIS-funded projects and bursaries.
3. Persons can be mentioned in events - such as news items, workshops, training events, publication events, workflow steps, and many more. They can attend and present at conferences, and be involved in peer review and program committees for scientific events.

This description can become quite elaborate, but the above will be adequate for supporting a wide variety of dynamic content.

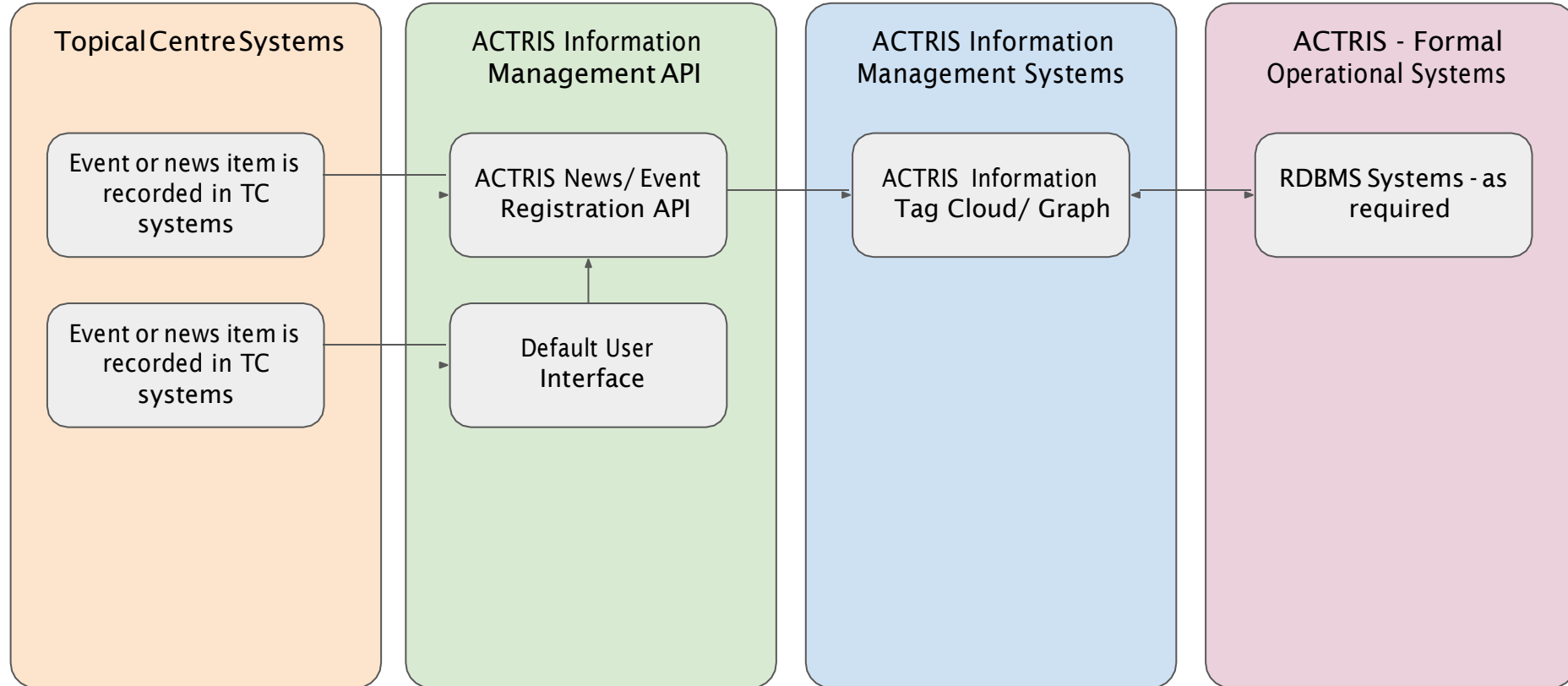
Use Case Example: 'Persons'

These are obtained via web service interfaces as a standard query, with the only change being the depth of search in the graph, the filters to apply, and the aggregation and grouping rules for the result:

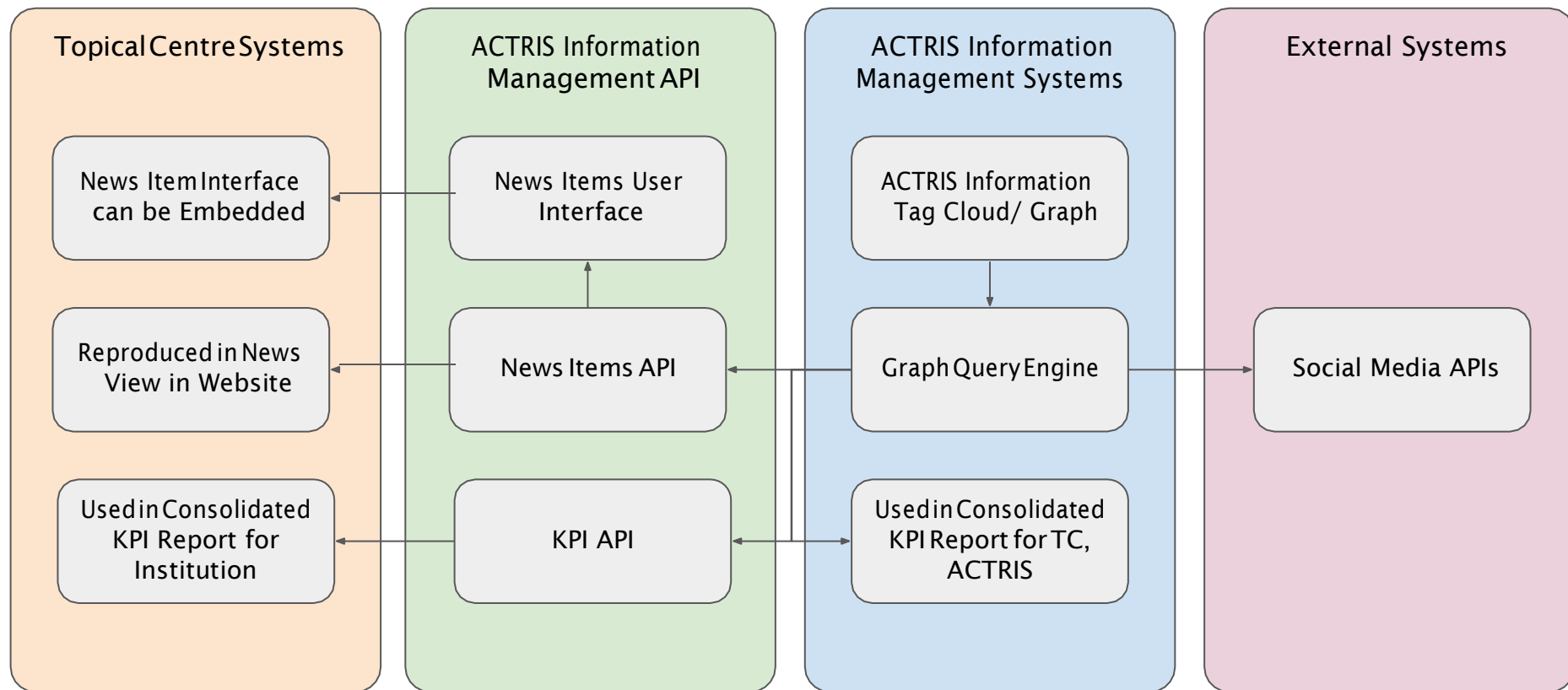
1. We can extract data for infographics on the managerial distribution, gender, age, and changes over time of our directly and indirectly employed personnel.
2. We can extract a dataset of the names, thumbnail pictures, and short biographies of board members, SIAB members, senior management, the researchers at one of the topical centres, and so on from the above.
3. Likewise, we can produce similar lists of past board and advisory structure members.
4. We can show a reporting hierarchy for each facility and topical centre, and who the current person is filling the position.
5. We can construct a KPI in respect of participation in international and regional scientific events, record of publication, and so on. Likewise for the number of external collaborations.

Integration Examples

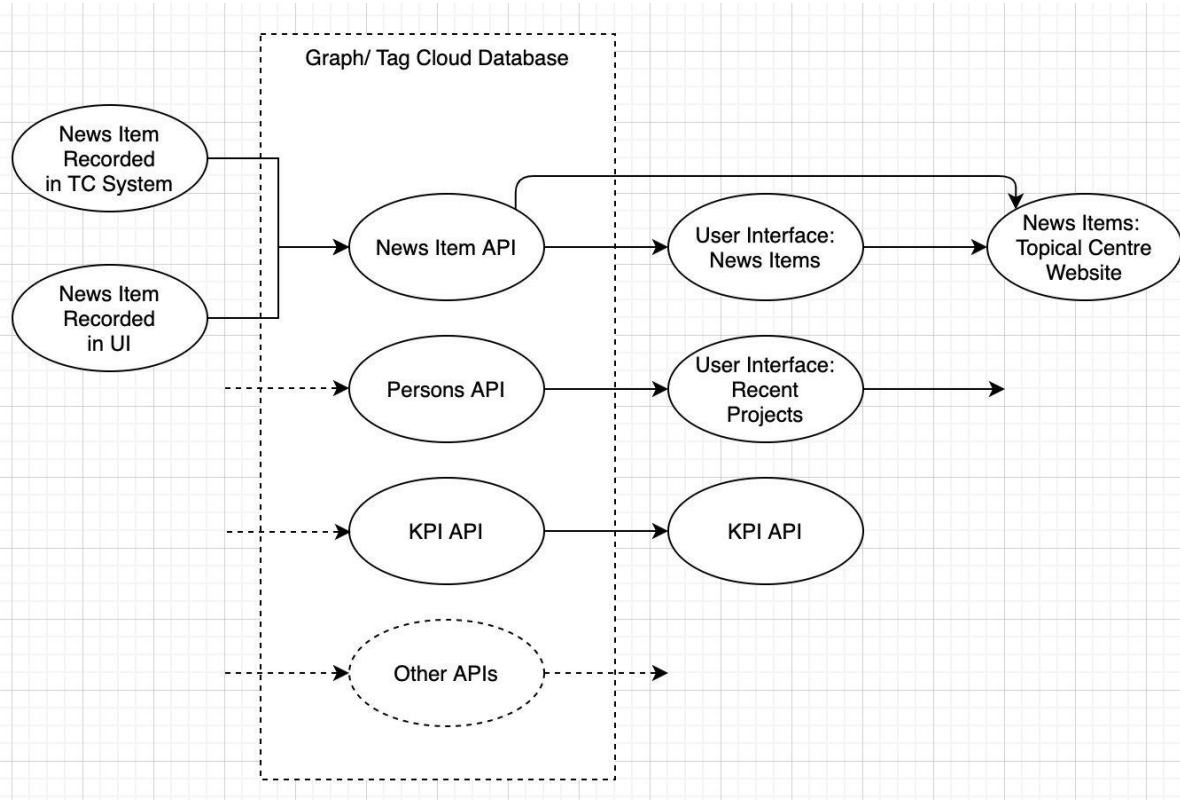
News Items and Newsworthy Events



News Items and Newsworthy Events



Alternative View: News Items

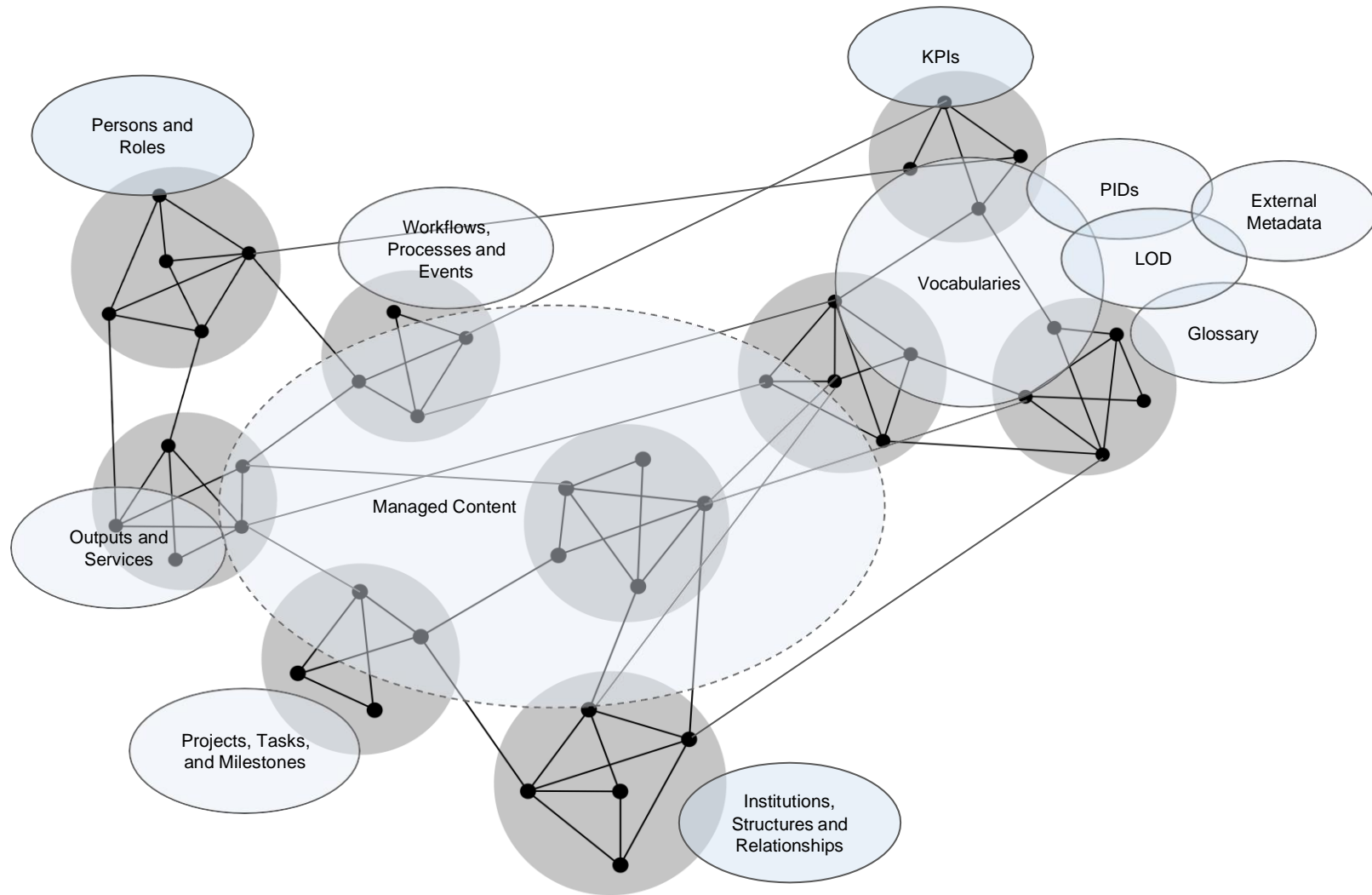


Topical Centres can share data:

- Programmatically, via API
- Manually, via Standard UI

Topical Centres can use data:

- Programmatically, via API
- Collaboratively, via API and shared code base
- Embedded, via Filtered Standard UI



Scalable, Distributed Databases