

### **European Translational Information and Knowledge Management Services**

# eTRIKS Deliverable report

# Grant agreement no. 115446

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#### 1. Executive Summary

eTRIKS Work Package 6 is tasked with coordinating and delivering training to users of the eTRIKS Knowledge Management Platform. It is recognised that training needs go beyond use of the Knowledge Platform and include data curation, data privacy, standards and tranSMART system administrator.

Training is provided either on public data sets or on aspects specific to a project, using the project's own data. We have found that the additional effort required to prepare and deliver project-specific training is rewarded in better engagement of trainees and higher overall assessment of the value of the training.

During the period of the project 34 training sessions have been run on 6 different topics to a total of 444 attendees. The overall satisfaction with the training provided by eTRIKS, as measured by participant feedback is good to excellent.

Public training materials are made available through the eTRIKS web site.

#### 2. Introduction

#### 2.1. Background and Scope

eTRIKS is a knowledge management and service infrastructure project aimed at development of a software and hardware system capable of the efficient storage and effective analysis of experimental data from studies in man, in animals and in pre-clinical models, maximizing the scientific knowledge that can be extracted from such studies.

The project's primary goal is to deliver a knowledge management system for ongoing and future IMI studies that require correlative analysis of both pre-clinical and clinical genome-scale biomarker data (genetics and genomics platforms) in conjunction with medical data from clinical trials. This open-source system will also be available for use outside of projects sponsored by IMI.

#### 2.2. Training and Work packages duties

Most work packages (WP1, WP3, WP4, WP6 and WP7) have been involved in the training efforts. The training coordination is under WP6 responsibility.

In order to achieve their objectives, the work package duties related to training are described in the project DoW:

- **WP1** will develop support framework and service model for distributed instances of the eTRIKS platform. This includes capability for installation and qualification of instances, *administrator training* and second tier support;
- **WP3** will *provide support and training* for the implementation of standards across the work packages;
- **WP4** will provide scientific support for eTRIKS users on the use of curation and analytics features of the system through *developing training materials* and building reusable workflows;







- **WP6** will build an active user and development community to enable the continuous development and use of the platform. The project will develop *activities specifically devoted to training and education* for use of the platform;
- **WP7** will *conduct training programs* to ensure that users of the system are aware of their ethical and legal requirements and responsibilities prior to granting access to the eTRIKS platform.

#### 2.3. Objectives

The main objective of WP6 training activities is to provide training on the use of the eTRIKS platform and services to all project partners (IMI and non-IMI projects). The training plan provides a general guide for training in both data management and data analysis. The key objectives of the training services are:

- To build an active community of experienced eTRIKS users.
- To enforce the eTRIKS engagement process of users through a well-organized training program.
- To provide quality didactic training courses that meet user needs.
- To provide materials (hands-on, case studies,...) that support user training.
- To periodically update/review the training materials.

This document describes the activities devoted to training and education for users of the eTRIKS platform and services.

#### 2.4. Tasks, Milestones and Deliverables

Specific tasks, milestones and deliverables related to training are assigned to each work package and are listed below as they are described in the original DoW document.

#### List of tasks related to training (as per WP)

- **T3.1.7** Provide education services and training; organize annual standards meetings (together with WP6).
- **T4.2.1** Implement the ETL and curation process and training the curators in: define study/data to be loaded, copy and converting data into a common format, applying common lexicons, vocabulary and ontologies (see Appendix E, DoW).
- **T4.6.2** Provisioning of training material and training sessions for eTRIKS curation and analytics.
- **T6.2.6** Arrange Training with Training Coordinator: Facilitate with a project, the engagement of the eTRIKS Training coordinator. Decide on which type of training will be required to support a project and then agree a plan on how to provide that training.
- **T6.4** Coordinate scientific end user training: Design, Implement and Coordinate a scientific training service that will provide end user training to ensure that scientists for a projects get the most value from eTRIKS thereby magnify support of eTRIKS as a platform.
- **T6.4.1** Develop training curriculum: Develop and implement the materials for training users including courseware and exercises. Train trainers to provide this training.







- **T6.4.2** Hold training sessions (48 in total): Deliver training to scientists from supported projects either in a class room or via virtual meeting technology.
- **T7.4.2** Develop a process and training programme with training material to ensure all users know all the legal, ethical and scientific approvals they must obtain before gaining access to the data, and that are incorporated into the eTRIKS platform.

#### List of milestones and deliverables related to training (as per WP)

**M3.2:** First training taken place with the eTRIKS curation team (WP4)

Due date: month +3Status: Completed

**D3.3:** Training program/material for outreach and WP4, WP2 for ETL curation using standards

Form: Report (R)Due date: month +6Status: Completed

**M4.6:** Delivery of eTRIKS analytics ecosystem release with eTRIKS v3 & technical and training documentation; Implemented model for data Provenance, business rules and security model

- Due date: month +30

- Verification: Code release and product

- Status: Completed

**M6.3:** Training curriculum first draft – curriculum and learning materials

- Due date: month +4

- Verification: Draft available

- Status: Completed

**M6.6:** First training session – report on attendees and feedback

- Due date: month +9

- Verification: Attendance list

- Status: Completed

M7.4: Ethics training programme established with first cohort of users trained

- Due date: month +18

- Verification: available on collaborative platform

- Status: Completed

#### 2.5. Training coordination

The coordination of the training is under WP6. The table below lists the project members in charge of the coordination of the eTRIKS training initiative.

Time period	Training coordinator	Contact
< Aug 2013	Yonny CARDENAS	-
Sept 2013 – Dec 2013	Nathalie JULLIAN	-
> Jan 2014	Gino MARCHETTI	marchett@cc.in2p3.fr







#### 3. Instructional methods

#### 3.1. Methodology

Methodology was adapted for the followings types of educational process:

#### • Collective training

- o class room organized in a venue of one of the three academics partners (CC-IN2P3, Lyon; University of Luxembourg, Esch-sur-Alzette; Imperial College, London)
- o workshop organized around a conference or satellite meetings

#### • Individual training and Self-learning

- o virtual meeting technology
- video and regular Webinars
- o training blog system

#### • Customized training

- o class room dedicated to a pharmaceutical company
- o class room dedicated to a specific project

The program supports different formats for the training sessions. Also it aims at facilitating discussions on topics and potential issues emerging around the development, deployment and use of eTRIKS applications in the broad context of translational research informatics.

The training organization is flexible allowing program customization in order to address specific requirements of a particular company or project (third option). When possible within time or access limitations, training sessions were provided based on the project proprietary data.

#### 3.2. Evaluation

An evaluation process was implemented to assess how training has influenced the participants and how that impact translates into results for the eTRIKS project.

Feedback was generally collected through electronic survey for a quantitative evaluation (see for example the survey form in appendix A.1), while at the same time quality was assessed adding to the training attendance selected members of other work packages and/or the training coordinator.

The use of the proposed feedback form was left to the instructors' discretion. In the case of the trainings specifically held for projects the feedback results are restricted to the project itself.

Evaluation results would affect training material updates and/or improvements.







### 4. Training Facilities & Resources

#### 4.1. Training centre

The educational process is supported by a <u>virtual training centre</u>, i.e. a delocalized organization established with dedicated manpower across eTRIKS partners. Its function is to create and distribute the training materials, organize and deliver training courses in collaboration with the supported projects account managers. This expert network provided useful exchanges between instructors reducing the steepness in the new instructors' learning curve, and allowing more standardized training sessions.

#### 4.2. Instructors

At the early stages of the project, a small panel of instructors was recruited among eTRIKS project scientists. As the project moved forward, more instructors were recruited and trained so that they could provide training to other scientists and satisfy the project needs. The process mostly ran on a voluntary basis, with the candidate instructor following one or more trainings and keeping in contact with the "experienced" instructors for follow-ups. In the last 18 months of the project, this has included liaison with partner organisations in the *eTRIKS Network*.

#### 4.3. Technological resources

Training material is available as PDF files, videos and regular Webinars through the dedicated website (<a href="www.etriks.org">www.etriks.org</a>). Since often trainings were prepared using proprietary data from the requesting project, access to some material may be restricted.

#### 4.4. Schedules

The project organises training courses on an as needs basis starting from the second year of the eTRIKS project.

First training session: January 2013Last training session: May 2017

For each training course, the following dates were provided through the usual communication channels (newsletter, mailing-list, website,...):

- Date of training course
- Venue
- Deadline date for application
- Attendance limit (when necessary)







#### 5. Audience

The training program is addressed to all eTRIKS project partners.

The audience can be classified by the following categories, allowing determination of the type of specific training to be offered.

#### 5.1. Platform and Service Administrators

Administrators for distributed instances of the eTRIKS platform. After the training, attendees should be able to install, maintain and administrate the platform infrastructure and the software tools.

#### **5.2.** Data Curators / Managers

Scientists in charge of the project data curation/management. This audience is expected to learn how to curate data (i.e. transform it in the appropriate standard and label it following the project mandated standards) and to load it into the system for further analysis.

#### **5.3. End-Users** (Data analysts)

All scientists interested in using the data available via the eTRIKS platform (data analysts, bio-informaticians, biologists, clinicians...). Trainings dedicated to this audience will focus on the analysis tools, reproducing test cases and answering the most frequently asked questions on the tool handling.

#### 5.4. General eTRIKS members

Any user as defined above. Cross-specialization training was delivered to provide education to all consortium members. These training sessions could interest project members that are:

- 1. expected to be in charge of the above trainings;
- 2. expected to know the legal implication of data handling;
- 3. expected to collaborate in the project support, or actively participate in bug reporting.

User education for project members falling in category *1*. is already described in paragraph 3.2. Trainings dedicated to categories *2*. and *3*. are detailed in the following chapter (paragraph 6.4).







#### 6. Training Curriculum

The eTRIKS training courses can be divided into four major topics according to the target audience:

- Platform administration: software installation, platform maintenance (transition training to plan for major upgrades), platform deployment (local or through CC-IN2P3 hosting facilities).
- Data management: data standards, ETL procedures.
- Data analysis: apply implemented standard workflows, report analysis results.
- eTRIKS user education: data handling and protection; how to use the bug tracking system.

#### 6.1. Platform administration

Due to the nature of the subject, a One to One tutoring through email exchange, calls and/or visits, was preferred to the standard training formula (Webinars and/or Face to Face classes). Most of the organization was left to the concerned individuals and due to high specificity of the trainings, no shareable material is available. For traceability reason, only the Face to Face visits are recorded in this document (appendix B.1).

<u>Infrastructure trainings:</u> Trainings on this subject were delivered by eTRIKS platform system administrators (WP1) to their counterparts on supported projects or other eTRIKS installations.

- Deployment and operation of infrastructure services
  - o Openstack cloud platform
  - o PostgreSQL Databases
  - o Authorization and Authentication (LDAP)
  - Webservers and proxies

<u>Software installation trainings:</u> Trainings on this subject were delivered by software developers (WP2 / WP6) to eTRIKS platform system administrators.

- Deployment and operation of business services
  - o tranSMART
  - o Galaxy
  - o eTRIKS Labs tools

#### 6.2. Data management

<u>Standard trainings</u>: Trainings on this subject were delivered at the beginning of the project (January-February 2013) by CDISC as a Webinar and a Face to Face seminar hosted by Sanofi in Paris.

- Webinar: Implementation of standards
  - o The value of standards
  - o Clinical information flow
  - The CDISC standards explained
- Seminar part 1: Introduction to Operational Data Model (ODM)
  - o Overview of ODM components
  - Data interchange process
  - Use cases
- Seminar part 2: Introduction to Biomedical Research Integrated Group (BRIDG)







- o BRIDG governance
- o Domain Analysis Model (DAM) for clinical research

Further trainings are available in arrangement with CDISC, but are not recorded in this document.

<u>Curation trainings:</u> Trainings on this subject were delivered as Face to Face classes hosted in University of Luxembourg (Esch-sur-Alzette) and CC-IN2P3 (Lyon).

- Introduction and exercise on the data curation and upload (ETL) process
  - o Installation of ETL environment (Kettle scripts)
  - Mapping files creation and file formats
  - Standard labelling and tranSMART tree structure design
  - o Upload workflow

#### 6.3. Data analysis

Trainings on this subject were delivered as Webinars or Face to Face classes hosted in various venues depending on the attendees' needs. FtF classes provided hands-on exercises and, on dedicated trainings for supported projects, proprietary data was loaded on tranSMART.

- TranSMART Basic Training
  - o Conducting a tranSMART Search
  - Project study structure
  - o Data types
  - o Basic use of Dataset Explorer
    - Cohort selection
    - Summary Statistics
    - Grid View
    - Data export
  - Advanced analysis workflows
    - Scatter Plot with Linear Regression
    - Marker selection
    - Survival Analysis
    - ANOVA Box Plot
    - Correlation Analysis
- TranSMART Advanced Training
  - o Remove Parts of a Search String
  - o Create a Gene Signature
  - o Search for Studies Using a New Gene Signature as a Filter
  - o Use a Heat Map to Compare Treatment Results
  - o Analyze Gene Expression Data from Different Perspectives

#### 6.4. User education

Trainings on this subject were delivered as Webinars.

<u>Bug report ticketing system use:</u> Training on this subject was delivered as a Webinar in November 2013 and in the following years, information was provided through One to One tutoring (not recorded in this document).

• eTRIKS Ticket Reporting System (eTRS) user:







- Access to the ticketing platform
- Submit a request or a Bug report
- Provide feedback to the expert
- eTRS Agent:
  - o Ticket "life-cycle" and treatment
  - Best practice suggestions
  - Overview of the Agent platform tools

<u>Ethics and Legal Service</u>: Trainings on this subject were delivered as Webinars. The sessions were recorded to allow new project members easy access to the information, thus avoiding repetition when the material does not undergo major updates.

- Data protection & security
  - o Privacy
  - Data re-use
  - Anonymization
- Data handling use cases

#### 6.5. Training feedback results

As of June 2017, a total of 34 training sessions have been delivered. The table below lists the training attendance relative to the training type and the attendees' project membership. For further details, Table B1 in the appendix shows the detailed training chronology.

	eTRIKS community	IMI project scientists	Bioaster scientists	OncoTrack scientists	UBioPred scientists	RA-MAP scientists	Abirisk scientists	COPDmap users	Translational researchers	Grand Total
eTRS system	13	-	-	-	-	-	-	-	-	13
standards	42	-	-	-	-	-	-	-	-	42
curation	25	21	6	-	-	-	-	-	-	52
data protection	50	-	-	33	-	-	-	-	-	83
data analysis	-	-	6	53	106	45	20	12	10	252
Grand Total	130	21	12	86	106	45	20	12	10	<u>444</u>

Estimating that less than 25% of the attendees participated to more than one training, it can be declared that the training program helped to inform and share the knowledge gathered in the eTRIKS project with more than 300 translational medicine scientists.

As explained in paragraph 2.2, feedback from the attendees was collected leaving to the instructors complete freedom in choosing the method to gather the information (whether by electronic survey, email, private interview,...). Furthermore, for trainings specifically held for projects the feedback results were restricted to the project itself.

For the reasons above, and in order to have normalized information, only the results gathered through the survey form equivalent to the one shown in appendix A.1 were considered for the following

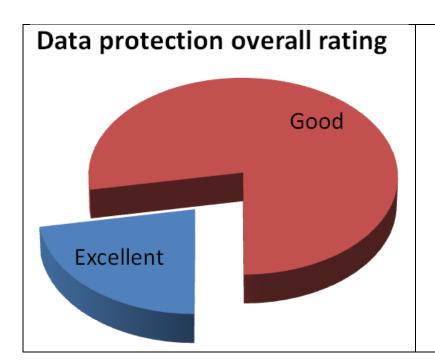






statistics. This choice limited the training types that could be analysed to three categories: data protection, data analysis and curation.

Here below, to summarize the results and give an overview on the training appreciation, only the overall rating of each training type is shown. To have the complete statistics as well as the surveys' numerical details, we will refer to appendixes A.2, A.3 and A.4



Excellent: 22.22 %
Good: 77.78 %
Average: 0.0 %
Poor: 0.0 %
Very poor: 0.0 %

# Data analysis overall rating Good Excellent Average

Excellent : 38.46 %
Good : 46.16 %
Average : 15.38 %
Poor : 0.0 %
Very poor : 0.0 %







# Excellent Good

Excellent : 73.33 %
Good : 26.67 %
Average : 0.0 %
Poor : 0.0 %
Very poor : 0.0 %







## 7. Training material archive

#### 7.1. Purpose and scope

The objective is to build a catalogue of training materials available to eTRIKS members. Training materials may include: seminar notes, presentations, workbooks, self-study tutorials, workflows, etc., associated with a software version release.

It provides the framework for determining how the training materials will be identified, developed, and delivered.

#### 7.2. Training materials archive

All training material based on the public instance and/or public data is made available. Table B.2 lists the material available for training as exposed in the community spreadsheet.

(URL: <a href="https://app.smartsheet.com/b/home">https://app.smartsheet.com/b/home</a>)







# A. Training feedback survey & results

# A.1. Survey form

Gen	era	l ci ii	$CV/\ThetaV$
UCI	lCl a	ı əui	v C y

\* Please indicate your impressions on the items listed below

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
The training met my expectations	•	0	0	<b>O</b>	0
I will be able to apply the knowledge learned	0	0	0	0	0
The training objectives for each topic were identified and followed	0	0	•	0	•
The content was organized and easy to follow	0	0	0	0	0
The topics covered were relevant to me	0	0	0	0	•
The time allotted for the training was sufficient	0	©	©	0	•
The trainer met the training objectives	0	0	0	0	©
Class participation and interaction were encouraged	0	0	©	0	0
Adequate time was provided for questions and discussion	•	•	0	0	•

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Choose one of the following answers

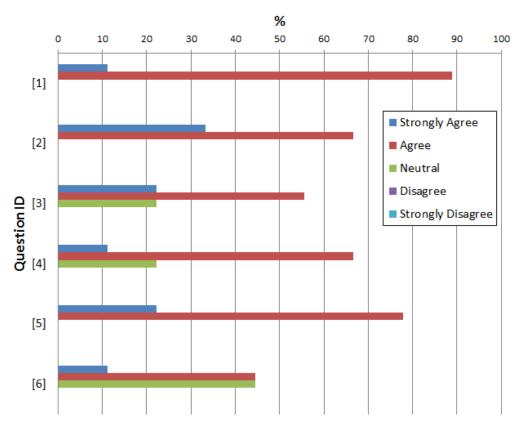
- Excellent
- Good
- Average
- Poor
- Very poor







# A.2. Data protection trainings



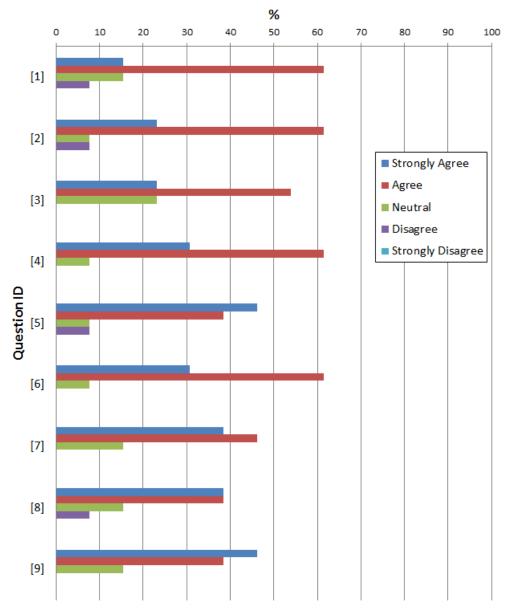
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The training met my expectations [1]	11.1	88.9	0	0	0
The content was organized and easy to follow [2]	33.3	66.7	0	0	0
The topics covered were relevant to me [3]	22.2	55.6	22.2	0	0
The time allotted for the training was sufficient [4]	11.1	66.7	22.2	0	0
Class participation and interaction were encouraged [5]	22.2	77.8	0	0	0
Adequate time was provided for questions and discussion [6]	11.1	44.4	44.4	0	0







# A.3. Data analysis trainings



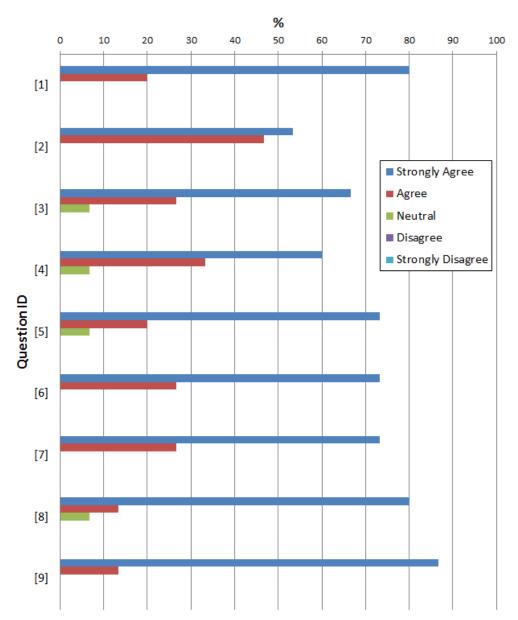
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The training met my expectations [1]	15.4	61.5	15.4	7.7	0
I will be able to apply the knowledge learned [2]	23.1	61.5	7.7	7.7	0
The training objectives [] were identified and followed [3]	23.1	53.9	23.1	0	0
The content was organized and easy to follow [4]	30.8	61.5	7.7	0	0
The topics covered were relevant to me [5]	46.2	38.5	7.7	7.7	0
The time allotted for the training was sufficient [6]	30.8	61.5	7.7	0	0
The trainer met the training objectives [7]	38.5	46.2	15.4	0	0
Class participation and interaction were encouraged [8]	38.5	38.5	15.4	7.7	0
Adequate time was provided for questions and discussion [9]	46.2	38.5	15.4	0	0







# A.4. Curation trainings



	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The training met my expectations [1]	80.0	20.0	0	0	0
I will be able to apply the knowledge learned [2]	53.3	46.7	0	0	0
The training objectives [] were identified and followed [3]	66.7	26.7	6.7	0	0
The content was organized and easy to follow [4]	60.0	33.3	6.7	0	0
The topics covered were relevant to me [5]	73.3	20.0	6.7	0	0
The time allotted for the training was sufficient [6]	73.3	26.7	0	0	0
The trainer met the training objectives [7]	73.3	26.7	0	0	0
Class participation and interaction were encouraged [8]	80.0	13.3	6.7	0	0
Adequate time was provided for questions and discussion [9]	86.7	13.3	0	0	0







# **B.** Training Archive tables

#### Table B1 fields are:

Date	when the training was provided						
Title	the training title						
WP	the work package responsible for the training. If the responsible was member of the eTRIKS Network, the field will be tagged with "NW"						
Presenter	trainer's name						
Presenter Organization	trainer's affiliation						
Audience	the group for whom the training was prepared						
Audience numbers	number of trainees						
Media	how the training was delivered						
Project	name of the project that benefits of the training						
Platform Details	details on the software (tranSMART, ICE, OTRS) used						

# Table B2 fields are:

Date Delivered	when the training was provided or the documents distributed
<b>Document ID</b>	the title of the document(s);
Version Number	version of the document(s)
Presenter / Contact	documents author or the distributor
WP	work package ID or "NW" if the training was delivered by an eTRIKS
	Network partner
Organization / Origin	information related to the author's affiliation
Platform ID, release	details on the software (tranSMART, ICE, OTRS) used
Target Audience	the group for whom the document(s) was created
De anno 114 Februari	format the document is saved and/or delivered; this could be:
<b>Document Format</b>	Word Document, PowerPoint Presentation, Video, PDF,
Data type	type of data used through the document
Taration	where the master documents are stored. For electronic documents, a
Location	network location is provided
Access	access restriction information







# **B.1.** Training History table

Date	Title	WP	Presenter	Presenter Organization	Audience	Audience	Media	Project	Platform details
14/12/12	Curation in tranSMART		G. Wang	J & J	eTRIKS Community	25	Web Training	eTRIKS	JnJ Instance
11/01/13	CDISC Introduction for IMI Projects	c.	P-Y. Lastic	CDISC	eTRIKS data managers	21	Web Training	eTRIKS	NA
07/02/13	CDISC Training for IMI Projects	3	P-Y. Lastic	CDISC	eTRIKS data managers	21	Face to Face	eTRIKS	NA
15/05/13	eTRIKS-UBIOPRED- Clinical-Data-Analysis- Training	9	I. Pandis	ICL	UBioPred scientists		Web Training	U- BIOPRED	U-BIOPRED instance
22/05/13	eTRKS-UBIOPRED- Clinical-Data-Analysis- Training	9	I. Pandis	ICL	UBioPred scientists		Web Training	U- BIOPRED	U-BIOPRED instance
21/06/13	tranSMART training for ONCOTRACK	9	E. Van Der Stuyft	J& J	oncoTRACK scientists	5	Web Training	OncoTrack	JnJ Instance
28/11/13	AZ UBIOPRED tranSMART demo and training	9	I. Pandis	ICL	AZ data analysts, tranSMART users	~20	Face to Face	U- BIOPRED	U-BIOPRED instance
02/12/13	NOVARTIS (CH) UBIOPRED tranSMART demo and training	9	N. Jullian	CNRS	Novartis data analysts	1	Face to Face	U- BIOPRED	U-BIOPRED instance
02/12/13	NOVARTIS (UK) UBIOPRED tranSMART demo and training	9	I. Pandis	ICL	Novartis data analysts	4	Face to Face	U- BIOPRED	U-BIOPRED instance
19/12/13	Personal Data Protection regulations	7	A. Bahr	Sanofi	eTRIKS Community	~25	Web Training	eTRIKS	NA
20/12/13	Southampton University UBIOPRED tranSMART demo and training	9	I. Pandis & S. Hasan	ICL & GSK	Southampton scientists	~15	Face to Face	U- BIOPRED	U-BIOPRED instance
28/01/14	UBIOPRED AGM, Barcelona, eTRIKS/tranSMART training	9	L.Pandis, N. Jullian & M. Saqi	ICL & CNRS	UBioPred scientists	14 & 18	Face to Face	U- BIOPRED	U-BIOPRED instance







Training History Table (2<sup>nd</sup> page)

5 111510	ry rubi	le (2 <sup>na</sup> <sub>1</sub>	page)	1							
OTRS @ CC-IN2P3	eTRIKS public server	NA	OncoTRACK instance	U-BIOPRED instance	U-BIOPRED instance	U-BIOPRED instance	NA	NA	RA-MAP	OncoTRACK instance	OncoTRACK instance
eTRIKS	eTRIKS	eTRIKS + projects	OncoTrack	U- BIOPRED	U- BIOPRED	U- BIOPRED	OncoTrack	OncoTrack	RA-MAP	OncoTrack	OncoTrack
Web Training	Face to Face	Web Training	Face to Face	Face to Face & Web training	Face to Face & Web Training	Web Training	Web Training	Web Training	Web Training	Web Training	Web Training
13	10	25	~25	9	12	~16	16	17	~15	11	12
eTRIKS Community	IMI project scientists	Account managers	oncoTrrack scientists	AZ data analysts and tranSMART users	AZ data analysts and tranSMART users	GSK scientists	OncoTrack scientists	OncoTrack scientists	RA-MAP scientists	OncoTrack scientists	OncoTrack scientists
CNRS	n.	Sanofi	J&J	ICL	ICL	ICL	Sanofi & Bayer	Sanofi & Bayer	J & J	J & J, UL, CNRS	n
G.Marchetti	S. Eifes, W.Gu & V. Satagopam	A. Bahr / Leila el Hadjam	I. Pandis & E. Van Der Stuyft	I. Pandis	I. Pandis	K.Sun	A. Bahr & D. Henderson	A. Bahr & D. Henderson	F. Bonachela- Capdevila	E. Van der Stuyft, W. Gu, G. Marchetti	W. Gu
9	4	L	9	9	9	9	L	7	9	6;4	4
OTRS Agent tutorial	eTRIKS-Data curation and upload training	Data protection in eTRIKS and Supported Projects	OncoTrack tranSMART training	AZ UBIOPRED tranSMART demo and training	AZ UBIOPRED tranSMART demo and training	U-BIOPRED Knowledge Portal and tranSMART Platform Training	Onco Track Privacy Training Webinar I	Onco Track Privacy Training Webinar II	MRC RA-MAP Introduction to tranSMART	OncoTrack tranSMART webinar	OncoTrack Galaxy intro webinar
12/02/14	20-21/03/14	28/04/14	21/05/14	03/06/14	04/06/14	24/10/14	18/02/15	20/02/15	27/02/15	06/03/15	11/03/15
	OTRS Agent tutorial 6 G.Marchetti CNRS eTRIKS Community 13 Web Training eTRIKS OTRS @ CC-IN2P3	OTRS Agent tutorial 6 G.Marchetti CNRS (COMPAN 13 Web Training TRIKS (COMPAN 13 OTRS (CLIN2P3 CTRIKS-Data curation and upload training 4 S. Eifes, W.Gu & V. UL IMI project scientists 10 Face to Face (CTRIKS public server CTRIKS public serve	OTRS Agent tutorial       6       G.Marchetti       CNRS       eTRIKS Community       13       Web Training       eTRIKS       OTRS @ CC-IN2P3         eTRIKS-Data curation and upload training       4       S. Eifes, W.Gu & V. Satagopam       UL       IMI project scientists       10       Face to Face       eTRIKS public server         Data protection in eTRIKS       7       A. Bahr / Leila el Hadjam       Sanofi       Account managers       25       Web Training       INA	OTRS Agent tutorial       6       G.Marchetti       CNRS       eTRIKS Community       13       Web Training       eTRIKS       OTRS @ CC-IN2P3         eTRIKS-Data curation and upload training upload training       4       S. Eifes, W.Gu & V. Satagopam       U.       IMI project scientists       10       Face to Face       eTRIKS public server         Data protection in eTRIKS       7       A. Bahr / Leila el       Sanofi       Account managers       25       Web Training       eTRIKS + NA         OncoTrack tranSMART       6       I. Pandis & E. Van       J & J       oncoTrack scientists       -25       Face to Face       OncoTrack instance	OTRS Agent tutorial       6       G.Marchetti       CNRS       cTRIKS Community       13       Web Training       cTRIKS       OTRS @ CC-IN2P3         eTRIKS-Data curation and upload training       4       S. Eifes, W.Gu & V.       U.       IMI project scientists       10       Face to Face       eTRIKS       public server         Data protection in eTRIKS and Supported Projects       7       A. Bahr / Leila ell       Sanofi       Account managers       25       Web Training       Projects       NA         AZ UBIOPRED tranSMART       6       I. Pandis & E. Van       ICL       AZ data analysts and demo and training       6       Face to Face & U- BIOPRED training       U- BIOPRED instance	OTRS Agent tutorial         6         G.Marchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS @ CC-IN2P3           eTRIKS-Data curation and undertaining         4         S. Eifes, W.Gu & V.         UL         IMI project scientists         10         Face to Face         eTRIKS         eTRIKS public server           Data protection in eTRIKS         7         A. Bahr / Leila el         Sanofi         Account managers         25         Web Training         RATRIKS+         NA           OncoTrack tranSMART         6         I. Pandis & E. Van         J.& J         oncoTrack scientists         -25         Face to Face         OncoTrack         OncoTrack           AZ UBIOPRED tranSMART         6         I. Pandis         I.C.         AZ data analysts and demo and training         6         Face to Face & U-bit web training         U-BIOPRED instance           AZ UBIOPRED transMART         6         I. Pandis         ICL         AZ data analysts and demo and training         6         Face to Face & U-bit web training         U-BIOPRED instance	OTRS Agent tutorial         6         G.Marchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS @ CC-IN2P3           eTRIKS-Data curation and upload training         4         S. Eifes, W.Gu & V.         U.L.         IMI project scientists         10         Face to Face         eTRIKS         eTRIKS public server           Data protection in eTRIKS-Projects         7         A. Bahr / Leila ell         Sanofi         Account managers         25         Web Training         eTRIKS public server           OncoTrack tranSMART         6         I. Pandis & E. Van         1, B. J         oncoTrack scientists         -2.5         Face to Face         U BIOPRED           AZ UBIOPRED tranSMART         6         I. Pandis         I.C.         AZ data analysts and demo and training         6         I. Pandis         I.C.         AZ data analysts and demo and training         BIOPRED         II. BIOPRED         UBIOPRED           AZ UBIOPRED knowledge         6         I. Pandis         I.C.         AZ data analysts and demo and training         II.         Web Training         U BIOPRED           Pataban dama/SMART         6         I. Pandis         IC.         AZ data analysts and demo and training         U         Web Training         U         U-BIOPRED	OTRS Agent tutorial         6         G. Marchetti         CNRS         FIRKS Community         13         Web Training         GTRIKS         OTRS @ CC-IN2P3           FIRKS-Data curation and upload training         4         S. Eifes, W.Gu & V.         U.         IMI project scientists         10         Face to Face         GTRIKS         GTRIKS public server           Data protection in eTRIKS         7         A. Bahr / Leila el         Sanoff         Account managers         2.5         Web Training         GTRIKS public server           OncoTrack tranSMART         6         I. Pandis & E. Van         J. & J         oncoTrack scientists         -2.5         Face to Face & Grace & U. BIOPRED         U.BIOPRED           AZ UBIOPRED tranSMART         6         I. Pandis         I.C.         AZ data analysts and demo and training         6         Face to Face & U. BIOPRED         U.BIOPRED           AZ UBIOPRED tranSMART         6         I. Pandis         I.C.         AZ data analysts and demo and training         6         Face to Face & U. BIOPRED         U.BIOPRED           Portal and transMART         6         I. Pandis         I.C.         AZ data analysts and demo and training         1         Web Training         U. U.BIOPRED           Portal and transMART varianing         7         A Balbr & D.         U. U.BIOPRED <th>OTRS Agent tutorial         6         G Marchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS @ CC-IN2P3           eTRIKS-Data curation and uniting training training and Supported Projects         2         Eace to Face         eTRIKS         eTRIKS public server           Data protection in eTRIKS         A Bahf / Leila el         Sanofi         Account managers         25         Web Training         eTRIKS public server           OncoTrack tranSMART         L Pandis &amp; E. Van         1, &amp; J         oncoTrack scientists         2.5         Face to Face (Pace Ranger)         OncoTrack princips           AZ UBIOPRED tranSMART         L Pandis &amp; E. Van         I.Pandis R. Van         I.C.         AZ data analysts and demonshing         6         Face to Face &amp; U BIOPRED transmark         U-BIOPRED transmark           AZ UBIOPRED transMART         L Pandis         I.C.         AZ data analysts and demonshing         6         Web Training         U-BIOPRED transmark         U-BIOPRED transmark           AZ UBIOPRED Knowledge         K. Sun         ICL         AZ data analysts and demonshing         ICL         AZ data analysts and demonshing         U-BIOPRED transmark         U-BIOPRED transmark           Portal and transming         A Bahr &amp; D.         Sanofi &amp; OncoTrack scientists         U-BioPred transmark         U-BIOP</th> <th>CFRIKS. Date curation and build project scientists         6         G. Marchetit         CNRS         CFRIKS. Community         13         Web Training         CFRIKS. Place to Flace         CFRIKS. Place to Flace to Flace         CFRIKS. Place to Flace to</th> <th>CIRRS Agent tutorial         6         Galarchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS@CC-IN2P3           eTRIKS-Data curation and pload training         4         S.Effex, W.Gu. &amp; V.         U.         IMI project scientists         15         Race to Face         eTRIKS         IRIKS public server           Dana protection in eTRIKS         7         A.Bahr 'Leila el         Sanofi         Account managers         25         Web Training         eTRIKS public server           OncolTrack transMART         6         L.Pandis &amp; E. Van         1,&amp; J         A.Z. data analysis and training         6         Face to Face &amp; U. Face to Face &amp; U. BIOPRED         U.BIOPRED           AZ UBIOPRED Knowledge         6         L. Pandis &amp; E. Van         I.C.         A.Z. data analysis and training         1         A.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         A.Z. data analysis and training         1         A.Z. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         A.B. data analysis analysis and training         1         B.B. data analysis analysis an</th>	OTRS Agent tutorial         6         G Marchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS @ CC-IN2P3           eTRIKS-Data curation and uniting training training and Supported Projects         2         Eace to Face         eTRIKS         eTRIKS public server           Data protection in eTRIKS         A Bahf / Leila el         Sanofi         Account managers         25         Web Training         eTRIKS public server           OncoTrack tranSMART         L Pandis & E. Van         1, & J         oncoTrack scientists         2.5         Face to Face (Pace Ranger)         OncoTrack princips           AZ UBIOPRED tranSMART         L Pandis & E. Van         I.Pandis R. Van         I.C.         AZ data analysts and demonshing         6         Face to Face & U BIOPRED transmark         U-BIOPRED transmark           AZ UBIOPRED transMART         L Pandis         I.C.         AZ data analysts and demonshing         6         Web Training         U-BIOPRED transmark         U-BIOPRED transmark           AZ UBIOPRED Knowledge         K. Sun         ICL         AZ data analysts and demonshing         ICL         AZ data analysts and demonshing         U-BIOPRED transmark         U-BIOPRED transmark           Portal and transming         A Bahr & D.         Sanofi & OncoTrack scientists         U-BioPred transmark         U-BIOP	CFRIKS. Date curation and build project scientists         6         G. Marchetit         CNRS         CFRIKS. Community         13         Web Training         CFRIKS. Place to Flace         CFRIKS. Place to Flace to Flace         CFRIKS. Place to Flace to	CIRRS Agent tutorial         6         Galarchetti         CNRS         eTRIKS Community         13         Web Training         eTRIKS         OTRS@CC-IN2P3           eTRIKS-Data curation and pload training         4         S.Effex, W.Gu. & V.         U.         IMI project scientists         15         Race to Face         eTRIKS         IRIKS public server           Dana protection in eTRIKS         7         A.Bahr 'Leila el         Sanofi         Account managers         25         Web Training         eTRIKS public server           OncolTrack transMART         6         L.Pandis & E. Van         1,& J         A.Z. data analysis and training         6         Face to Face & U. Face to Face & U. BIOPRED         U.BIOPRED           AZ UBIOPRED Knowledge         6         L. Pandis & E. Van         I.C.         A.Z. data analysis and training         1         A.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         A.Z. data analysis and training         1         A.Z. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         B.B. data analysis and training         1         A.B. data analysis analysis and training         1         B.B. data analysis analysis an







Training History Table (3<sup>rd</sup> page)

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Platform details	Abirisk training VMs	eTRIKS public server	RA-MAP	eTRIKS public server	ad hoc instance	ad hoc instance	RA-MAP	COPDmap	COPDmap	eTRIKS public server	ad hoc instance	
Project	Abirisk	eTRIKS	RA-MAP	eTRIKS	BioAster	BioAster	RA-MAP	COPDmap	COPDmap	eTRIKS	eTRIKS	
Media	Face to Face & Web Training	Face to Face	Web Training	Face to Face	Face to Face	Face to Face	Web Training	Web Training	Web Training	Face to Face	Face to Face	
Audience numbers	~20	2	~20	8	9	9	~10	8	4	3	~10	
Audience	Abirisk scientists	UL Sysstem Administrators	RA-MAP scientists	IMI project scientists	BioAster scientists	BioAster scientists	RA-MAP scientists	COPDmap users	COPDmap users	IMI project scientists	Translational researchers	
Presenter Organization	CNRS	CNRS	J&J	UL	CNRS & UL	CNRS	J&J	ITTM	MLTI	UL, CNRS & ELIXIR-LU	ITTM	
Presenter	N. Jullian	B. Guillon & L-A. Denis	F. Bonachela- Capdevila	W.Gu & A. Barbossa	G. Marchetti, W. Gu, P. Liu	G. Marchetti	F. Bonachela- Capdevila	S. Eifes	S. Eifes	W.Gu & G.Marchetti	S. Eifes	
WP	9	1	9	4	4	9	9	NW	MN	4 / NW	MN	
Title	eTRIKS-ABIRISK collaboration: Introduction to transmart	eTRIKS Platform Work session	MRC RA-MAP tranSMART training (II)	eTRIKS-Data curation and upload training	Data curation and upload training for BioAster	tranSMART end-user training for BioAster	MRC RA-MAP. TranSMART training	COPDmap TranSMART user training (Leicester)	COPDmap TranSMART user training (London - ICL)	eTRIKS/ELIXIR-LU data curation training for TranSMART	BioTransR end-user training on tranSMART	
Date	18/03/15	16-17/03/15	30/06/15	16-17/03/15	04/03/16	11/03/16	18/05/16	26/05/16	02/05/16	15-16/09/16	15/05/17	







# **B.2.** Training Repository table

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Access	free	free	free?	i easy	i earj	$\ell$ easy	i easy	free	eauj	restricted	free	free
Location	vQVmwZsR6H8	KUKFQeaPbTk	<u>ITdRbtaXb24</u>	53BttxoIZXE	MrXW21sogmc					UBIOPRED Knowledge Portal	87724ce64da9	
Data Type	Clinical		Raw data files	Raw data files	Gene expression		Clinical			Clinical, gene expr.	Clinical	Gene expression
Document Format	video	Video	video	video	video	ADF	PDF	PDF	ADF	PDF/video	video	PDF
Target Audience	Data analysts	Data managers	Data managers	Data managers	Data managers	Data managers	Data analysts	Data managers	Data managers	Data analysts	OncoTrack scientists	Clinicians, d. analysts
Platform ID, release	tranSMART, release unclear	tranSMART, release unclear	ICE, release unclear	ICE, release unclear	ICE, release unclear	tranSMART 1.0, nstance unclear	tranSMART 1.0, nstance unclear	eTRIKS (tranSMART 1.1)	eTRIKS (tranSMART 1.1)	tranSMART 1.0, ICL nstance	tranSMART 1.0, JnJ nstance	eTRIKS (tranSMART 1.1)
Organization/ Origin	Recombinant	Recombinant	Sanofi	Sanofi	Sanofi	Recombinant	Recombinant	CDISC	CDISC	ICL	J & J	CNRS
WP			6	9	9			3	3	9	6	9
Presenter/Contact	Flagged on youtube by A. Cortez	Flagged on youtube by A. Cortez	C. Raillere / D. Peyruc	C. Raillere / D. Peyruc	C. Raillere / D. Peyruc			P-Y. Lastic	P-Y. Lastic	I. Pandis	E. Van de Stuyft	N. Jullian
Version No.											1	1
Document ID	tranSMART: survival analysis	tranSMART: introduction to Dataset Explorer	ICE: introduction	ICE: loading of clinical data	ICE: loading of gene expression data	tranSMART training: Fundamentals	tranSMART training: Advanced	CDISC Introduction for IMI Projects	CDISC Training for IMI Projects	tranSMART training: U- BioPRED	tranSMART training for ONCOTRACK	eTRIKS tutorial: clinical data
Date Delivered						07/04/10	07/04/10	11/01/13	21/06/13	01/05/13	21/06/13	25/11/13







Training Repository Table (2<sup>nd</sup> page)

i <u>raining</u>	Kepos	suory 1	uvie (2	page						1	1	
Access	free	restricted	free	free	free	free	restricted	restricted	restricted	restricted	restricted	restricted
Location		UBIOPRED Knowledge Portal	webinar	webinar	eTRIKS public server	webinar	OncoTrack DB	OncoTrack DB	OncoTrack DB	webinar	OncoTrack DB	OncoTrack DB
Data Type	Clinical, gene expr.				Clinical, gene expression		Clinical, mutations, methylation			Clinical	DNA, Methylation, RNA,	DNA, Methylation, RNA,
Document Format	PDF	PDF	PDF	PDF	PDF	PDF	pptx slides	Recording and slides	Recording and slides	PDF	Recording and slides	Recording and slides
Target Audience	Clinicians, d. analysts	Data analysts	eTRIKS members	eTRIKS members	IMI scientists	Account	OncoTrack scientists	OncoTrack scientists	OncoTrack scientists	RA-MAP scientists	OncoTrack scientists	OncoTrack scientists
Platform ID, release	eTRIKS (tranSMART 1.1)	tranSMART 1.1	NA	OTRS @ IN2P3	tranSMART 1.1	NA	tranSMART 1.1	NA	NA	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2 ecosystem
Organization/ Origin	CNRS	ICL / CNRS	Sanofi	CNRS	UL	Sanofi	ነጴነ	Sanofi & Bayer	Sanofi & Bayer	J & J	J & J, UL, CNRS	UL
WP	9	9	7	9	4	7	9	7	7	9	6,	4
Presenter/Contact	N. Jullian	I. Pandis / N. Jullian	A. Bahr	G.Marchetti	S. Eifes, W.Gu & V. Satagopam	A. Bahr / Leila el Hadjam	I Pandis and E Van der Stuyft	A. Bahr & D. Henderson	A. Bahr & D. Henderson	F. Bonachela- Capdevila	E. Van der Stuyft, W. Gu, G. Marchetti	W. Gu
Version No.	1	1		_	1							
Document ID	eTRIKS tutorial: gene expression	U-BioPRED eTRIKS/tranSMAR T demo & training	Personal Data Protection regulations	OTRS Agent tutorial	eTRIKS-Data curation and upload training	Data protection in eTRIKS and Supported Projects	tranSMART training for ONCOTRACK	OncoTrack Privacy Training Webinar I	OncoTrack Privacy Training Webinar II	MRC RA-MAP Introduction to tranSMART	OncoTrack tranSMART webinar	OncoTrack Galaxy intro webinar
Date Delivered	25/11/13	02/12/13	19/12/13	12/02/14	20- 21/03/14	28/04/14	21/05/14	18/02/15	20/02/15	27/02/15	06/03/15	11/03/15







Training Repository Table (3<sup>rd</sup> page)

Trait	ning Re	eposito	ry Tabl	e (3'" p	age)					•	,	
Access	restricted	restricted	free	restricted	restricted	restricted	restricted	restricted	free	eeu		
Location	Abirisk DB	webinar	eTRIKS public server	ad hoc instances	ad hoc instances	webinar	webinar	webinar	eTRIKS public server	ad hoc instances		
Data Type	Clinical	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression	Clinical, gene expression		
<b>Document</b> Format	ppt slides	PDF, recording	PDF	PDF + OVA	PDF	PDF, recording	PDF, recording	PDF, recording	PDF	PDF, recording		
Target Audience	Abirisk scientists	RA-MAP scientists	IMI scientists	BioAster scientists	BioAster scientists	RA-MAP scientists	COPDmap users	COPDmap users	IMI scientists	Translational researchers		
Platform ID, release	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	tranSMART 1.2	eTRIKS v3		
Organization/ Origin	CNRS	J & J	UL	CNRS & UL	CNRS	J & J	ITTM	ITTM	n.	ITTM		
WP	9	9	4	4	9	9	NW	NW	4	NW		
Presenter/Contact	N. Jullian	F. Bonachela- Capdevila	W.Gu & A. Barbosa	G.Marchetti, W.Gu, P.Liu	G. Marchetti	F. Bonachela- Capdevila	S. Eifes	S. Eifes	W.Gu & G.Marchetti	S. Eifes		
Version No.			2	2					2	3		
Document ID	eTRIKS-ABIRISK collaboration: tranSMART intro	MRC RA-MAP Introduction to tranSMART (II)	eTRIKS-Data curation and upload training	Data curation and upload training for BioAster	tranSMART enduser training for BioAster	MRC RA-MAP. TranSMART training	COPDmap TranSMART user training (Leicester)	COPDmap TranSMART user training (ICL)	eTRIKS/ELIXIR-LU data curation training for tranSMART	BioTransR end-user training on tranSMART		
Date Delivered	18/03/15	30/06/15	16- 17/11/15	04/03/16	11/03/16	18/05/16	26/05/16	02/05/16	15- 16/09/16	71/50/51		











