



European Translational Information and Knowledge Management Services

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Report on community building and engagement

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1. Executive Summary

The goal of this deliverable is to describe the creation and growth of a community of translational research projects around the eTRIKS/TranSMART knowledge platform. Building such a community of projects able to leverage the expertise, the developments and the best practices in data management produced within eTRIKS during the last five years, was one of the project objectives for eTRIKS. Section 3 describes the engagement strategy followed within WP6 to build the community. Section 4 delves into the community and how eTRIKS have impacted every of the projects listed in the community.

2. Introduction

eTRIKS has developed a strategy to engage a community of translational research projects that can leverage the holistic approach for translational research focused around the eTRIKS/TranSMART knowledge platform.

The creation and growth of such a community of projects, that includes not only public-private partnerships such as IMI and MRC but also single-institution projects aiming at optimizing their translational data management, has required a formal strategy that considers not only the scientific background but also human behaviour and marketing elements.

During the last five years, eTRIKS have fruitfully collaborated with over 60 projects. In addition to the diffusion of applications and know-how, the interaction with the community of projects has generated a large pool of users and a collection of use cases and requirements that have helped eTRIKS to improve existing capabilities and produce new ones.

3. Project engagement strategy

The project engagement strategy is the roadmap that eTRIKS WP6 has followed to build a community of engaged projects and aims at overcoming some decisive challenges before establishing a fruitful collaboration:

- Projects are often unfamiliar with the activities of eTRIKS.
- Projects usually consider knowledge management as secondary to their scientific purpose.
- Projects are not consistent in how they approach knowledge management
- It can be unclear how knowledge management is governed within a project
- Knowledge management challenges faced by projects are highly variable
- Knowledge management resources available internally in a project are highly variable
- There is often a significant under appreciation of the resource required in a project to deliver good knowledge management

The project engagement strategy consists of basically four main steps:

1. Identification of potential candidate projects.
2. Establishment of valued contact with the project
3. Evaluation and engagement offer
4. Formal engagement

3.1. Project identification

The European landscape of translation data projects is diverse and fragmented across scientific/medical interests, institutions and funding sources. Business development efforts have been required to identify potential eTRIKS clients. These efforts employed a multi-faceted approach to identify candidate projects for which eTRIKS' products and services would be of high value :

- Intensive online presence and campaigns in order to attract attention of projects that proactively look for support in terms of data management.
- Exhaustive browsing of active translational research projects by exploring funding bodies, company involvement in public-private partnerships and wide promotion of eTRIKS in scientific events and networking.

3.2. Establishment of valued contact with the project

Projects identified as suitable candidates need to be contacted in order to introduce eTRIKS as a potential partner. For those projects that are not proactively looking for a collaboration with eTRIKS, the first exploratory contact is a pivotal step. To facilitate interaction and exploratory discussions, the eTRIKS Engagement and Outreach team needs to identify an appropriate personnel contact within the prospective project to which to introduce the potential value proposition of a collaboration with eTRIKS. This initial communication must be provided in a concise and understandable manner, and is typically in written form (such as an email). Public-private partnerships are heterogeneous projects with dozens of researchers and variable work distribution. Identifying who, in every potential project, is knowledgeable enough to recognize the importance of efficient data management (e.g. data manager) and who, in every project, has the influence to negotiate with eTRIKS a potential collaboration (e.g. project manager) is a laborious task that has been repeated as many times as eTRIKS has engaged projects.

There are two primary goals for the first exploratory contact. First, eTRIKS needs to understand the aims and drivers of the project and secondly, the potential candidate project needs to understand the range of services that eTRIKS can provide and how

these can improve their data management flow. Table 1 lists the project information checklist to be discussed during the first exploratory meeting.

Although there are different methods to set up an initial contact, in our experience a phone call/videoconference is the preferred method to discuss elements from table 1 and achieve the initial double objective.

3.3. Engagement offer

The scale of the requested engagement can be anything from access to good practise guidance to full project data hosting. For instance, Abirisk, APPROACH Oncotrak, UBiopred and RA-MAP are engaged through a deep support that include data curation and/or data hosting. However, other projects such as Masterplans or QuiC-Concept are engaged in a light context where only training and/or advice is being provided.

At an early stage the scale of the likely engagement needs to be established. For light engagements, which may include consulting with respect to data management planning and/or training, resources within eTRIKS and the client project are likely to be readily available. However, more extensive engagements that require dedicated resourcing and possibly contracting must be approved by the eTRIKS General Assembly and the equivalent governing body in the client project.

In order to build a formal engagement offer, an engagement plan, which typically requires input and commitment across multiple eTRIKS work packages, will be prepared. This preparation may require teleconferences and face to face meetings between colleagues representing eTRIKS and the prospective client. This plan should identify the resources that will be required from each eTRIKS Work Package as well as resources required of the client.

For a small scale engagement this need be no more than a list of resources, personnel and products, and how to engage these personnel and access these projects. For larger engagements, however, it may form part of a legal agreement between the projects.

It should be recognised that the plan is not immutable and should be reviewed operationally throughout any engagement.

3.4. Formal Engagement

A formal engagement will be in place if the engagement plan, shaped into an engagement offer and shared with the potential project is accepted. In this case, a working group composed of members from eTRIKS and the engaged project is created and this working group defines a work plan to achieve the goals set forth in the engagement plan.

eTRIKS personnel keep track of the operational activities associated with the engagement in an internal Client Relationship Management (CRM) system. Significant changes or developments also need to be recorded in the CRM and reported to WP6.

Operational issues should be raised at the eTRIKS Operations Meeting, held weekly by telecon, and the project, as part of the eTRIKS community, will be invited to any events such as trainings, conferences or webinars that eTRIKS may organize.

4. eTRIKS community

Table 2 lists the projects that eTRIKS has fruitfully engaged in a collaboration, along with the eTRIKS account manager that has coordinated the eTRIKS support. Due to the broad range of eTRIKS support, in Supplementary file 1 we have itemized, for every project, the collection of support types and mark those that apply. Table 3 provides more information on the meaning of every support item.

As discussed earlier, eTRIKS support is variable and heterogeneous and ranges from a basic training in data management through to comprehensive support that typically includes multiple eTRIKS services such as data curation, platform support and development of custom software.

The exact number of projects is difficult to establish, since some collaborations have been undertaken through other proxy projects, consortia or companies, such as TraiT and Thomson-Reuters. TraiT, a Netherlands-based project aiming at developing and implementing IT solutions for translational research projects, and Thomson Reuters, a multi-national firm with interest in IT solutions for translational research projects, have established and supported their own community of projects with the Postgres based TranSMART data warehouse that eTRIKS decisively contributed to. Therefore, eTRIKS

has impacted many projects without direct engagement, the specific number of which being difficult to establish due to the privacy policies of the proxy partners. Therefore, it is possible that certain projects may be represented twice in the project list. It is also likely that additional projects that have benefitted from eTRIKS are not represented.

The increase of the number of engaged projects has accelerated during the course of eTRIKS. A substantial increase in the amount of engaged projects during the last two years (~15 projects in January 2015 and ~60 in August 2017) is due to the adoption of mature software platforms, services and best practices that were in development during the first years of eTRIKS.

5. Conclusion

The generation of a community of projects has been paramount for eTRIKS. Project support is the most important of the project objectives and is the critical key performance indicator for the eTRIKS consortium. The collaboration between eTRIKS and the eTRIKS community projects has been fruitful for both parties. First, supported projects have been able to leverage eTRIKS' substantial domain expertise data management services and technical platforms developed during the last five years within a public-private consortium that gathered more than 80 experts from 17 different partners. Secondly, eTRIKS have found a fertile set of collaborations to apply the developments and best practices and improve them based on the constant and continuous high-level feedback from the engaged projects.

eTRIKS' effort to build a community of projects is only meaningful as long as the communication and interaction remains effective and open between eTRIKS and the client projects. Such communication encourages clients to share their needs and data management issues to drive the development of novel and more efficient solutions.

6. Tables

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Table 1. Project information checklist during the first exploratory meeting

<i>Scientific questions</i>
<i>Problems in data management</i>
<i>Project use cases - functionality needed</i>
<i>Data Management Plan</i>
<i>Data types</i>
<i>Is there a need for public data?</i>
<i>Project data becoming public?</i>
<i>Data curation needs</i>
<i>Data sustainability plans</i>
<i>Is there a dedicated data manager within the project?</i>
<i>System deployment options</i>
<i>Special security needs?</i>
<i>CDA/MTA/others will be needed?</i>
<i>Project resources available</i>
<i>Data is anonymised or personal?</i>

Table 2. List of engaged projects with the respective eTRIKS account manager and the project link

Project Name	eTRIKS account manager	Project link
Abirisk	Wei Gu	www.abirisk.eu/
ADAPTED	Denny Verbeeck	https://www.imi-adapted.eu/
AETIONOMY	Adriano Barbosa	https://www.aetionomy.eu/
Approach	Andreas Tielmann	https://www.approachproject.eu/
BioAster	Bertrand De Meulder	www.bioaster.org
BioVacSafe	Ibrahim Emam	www.biovacsafe.eu/
Bloodwise_Lymphoma	Francisco Bonachela-Capdevila	
Connected Health Cities (CHC)	Fabien Richard	
COPDmap	Scott Wagers	www.copdmap.org
DIRECT	Paul Peeters	www.direct-diabetes.org
EMIF	Francisco Bonachela-Capdevila	www.emif.eu
EPAD	Paul Peeters	www.ep-ad.org/
esperRare	Fabien Richard	http://esperare.org/en

EU-AIMS	Paul Peeters	https://www.eu-aims.eu/
Friedrich-Alexander-Universität Erlangen-Nürnberg	Sascha Herzinger	https://www.fau.eu/
Georg-August-Universität Göttingen	Sascha Herzinger	www.uni-goettingen.de/en/1.html
Institut Bergonié, Bioinformatics	Sascha Herzinger	www.bergonie.org/
Center for Genomic Research, University of Liverpool	Francisco Bonachela-Capdevila	https://www.liverpool.ac.uk/genomic-research
Masterplans	Francisco Bonachela-Capdevila	www.lupusmasterplans.org/
MATURA	Denny Verbeeck	www.matura.whri.qmul.ac.uk
Translocation	Chris Marshall	http://www.nd4bb.eu/
Oncodesign	Bertrand De Meulder	www.oncodesign.com/
Oncotrack	David Henderson	www.oncotrack.eu/
OPTIMISE	May Yong	http://www.optimize-ms.org/

Precisesads	David Henderson	www.precisesads.eu/
Predict-TB	Francisco Bonachela-Capdevila	www.predict-tb.eu
PREPARE	Bertrand De Meulder	
PSORT	Francisco Bonachela-Capdevila	www.psort.org.uk
Quic-Concept	Francisco Bonachela-Capdevila	www.quic-concept.eu
RA-MAP	Francisco Bonachela-Capdevila	www.ra-map.com
SAFE-T	Jay Bergeron	http://www.imi-safe-t.eu/
Thomson Reuters (4 projects)	Francisco Bonachela-Capdevila	https://www.thomsonreuters.com/en.html
TraIT (11 projects)	Francisco Bonachela-Capdevila	www.ctmm-traits.nl
Ubiopred	Kai Sun	http://www.europeanlung.org/en/projects-and-research/projects/ubiopred/home
UK Biobank	Andrea Meiser	www.ukbiobank.ac.uk
Acute Kidney Injury Map	Alexander Mazein	http://disease-maps.org/projects/acutekidneyinjury

Anaphylaxis Map	Alexander Mazein	http://disease-maps.org/projects/anaphylaxis
AsthmaMap	Alexander Mazein	http://disease-maps.org/projects/asthma
Atherosclerosis Map	Alexander Mazein	http://disease-maps.org/projects/atherosclerosis
Cancer (ACSN)	Alexander Mazein	http://disease-maps.org/projects/cancer
Cystic Fibrosis Map (CF-MAP)	Alexander Mazein	http://disease-maps.org/projects/cysticfibrosis
Lung Cancer Disease Map (LCDM)	Alexander Mazein	http://disease-maps.org/projects/lungcancer
Multiple Sclerosis Map (MS-MAP)	Alexander Mazein	http://disease-maps.org/projects/multiplesclerosis
Parkinson's Disease Map (PD Map)	Alexander Mazein	http://disease-maps.org/projects/parkinsons
Coronary Artery Disease Map	Alexander Mazein	http://disease-maps.org/projects/coronaryarterydisease
Rheumatoid Arthritis Map	Alexander Mazein	http://disease-maps.org/projects/rheumatoidarthritis
RASP	Stelios Pavlidis	www.rasp.org.uk
European Respiratory	Stelios Pavlidies	HYPERLINK "https://www.ersnet.org/"

Society		https://www.ersnet.org
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Table 3. Description of support items from eTRIKS to engaged projects

Support Type	Support Item	Meaning
eTRIKS/tranSMART Platform	Deployment training/support	eTRIKS/TranSMART platform has been deployed within the project or a deployment training has been delivered
	Admin training/support	eTRIKS/TranSMART platform has been administered or an administration training has been delivered
	End-user support	Support to eTRIKS/TranSMART platform user has been provided
	End-user training	Training to eTRIKS/TranSMART platform user has been provided
	Custom Development	Customized project-based eTRIKS/TranSMART development has been developed
	Platform development (e.g. Postgres)	The project uses an eTRIKS based tranSMART knowledge platform
	Platform troubleshooting/Bug fixing	eTRIKS/TranSMART troubleshooting and/or bug fixing has been delivered
ETL Pipelines	Training	A training on ETL procedures has been delivered
	Application	ETL procedures have been applied
	Development	ETL procedures have been developed based on the project needs
	Quality control	Ad-hoc data quality control procedures have been applied after data upload

Curation	Data curation training	A training on data curation has been delivered
	Data Curation	Data curation has been done
	Curation support	Support on data curation has been provided
Standards	Standards Advice/Training	Advice and/or training on data standardization has been provided
Data ethics, privacy and protection requirements	Consent forms	Advice and/or training on patient consent forms has been provided
	Patient rights	Advice and/or training on patient rights has been provided
	Data Security	Advice and/or training on data security has been provided
	Privacy advice	Advice and/or training on privacy has been provided
Data management	Data hosting	eTRIKS hosts project data
	Data tree modelling	Advice and/or training on eTRIKS/TranSMART data tree modelling has been provided
	Data reuse and fairification/Data Catalogue	Advice and/or training has been provided on how to reuse data, how to make data FAIR and how to make data findable through the eTRIKS Data Catalogue
eTRIKS Labs/analytcs development	eHS	eTRIKS Harmonisation System has been applied
	eTRIKS analytical engine	eTRIKS analytical engine has been applied
	Similarity Network Fusion	eTRIKS framework for similarity network fusion has been applied
	SmartR	eTRIKS SmartR visual analytics tool has been applied

	WGCNA	eTRIKS framework for WGCNA analysis has been applied
	Disease Networks	eTRIKS disease networks have been applied
	Disease Maps	Disease maps are being developed/improved and applied
	HiDome	eTRIKS HiDome for high dimensional cohort selection has been applied
	eTRIKS version of PLAY DECIDE	eTRIKS version of PLAY DECIDE game has been applied
	Galaxy Interface	Galaxy interface with eTRIKS/TranSMART has been applied
	Federated Data Integration	eTRIKS/TranSMART federated data integration has been applied
	XNAT	eTRIKS plug in for XNAT data integration into the eTRIKS/TranSMART platform has been applied
	Immuno Map	eTRIKS Immuno Map has been applied
Data Sustainability	ELIXIR	ELIXIR node has been used for long term data sustainability
	eTRIKS network	Collaboration agreement with eTRIKS network has been reached
Requirements	Requirements gathering	eTRIKS have collected requirements from the project

Table 4: eTRIKS support by Project

	Abirisk	ADAPTED	AETIONOMY	Approach	BioAster	BioVacSafe	Bloodwise_Lymphon
	Deployment training/support	X	X	X			
	Admin training/support	X	X	X			
	End-user support	X			X		
	End-user training	X			X		
	Custom Development	X	X				
	Platform development (e.g. Postgres)						
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing		X	X			
	Training	X					X
	Application	X		X			
	Development	X					
ETL Pipelines	Quality control	X					
	Data curation training	X		X			X
	Data Curation	X		X			
Curation	Curation support	X		X			
Standards	Standards Advice/Training	X		X			
	Consent forms						
	Patient rights						
	Data Security			X			
Data ethics, privacy a	Privacy advice	X		X			
	Data hosting	X		X			
	Data tree modelling	X		X			
Data management	Data reuse and fairification/Data Catalogue	X		X			
	eHS					X	
	eTRIKS analytical engine			X			
	Similarity Network Fusion						
	SmartR	X		X			
	WGCNA						
	Disease Networks			X			
	Disease Maps						
	HiDome						
	eTRIKS version of PLAY DECIDE						
	Galaxy Interface						
	Federated Data Integration						
	XNAT						
eTRIKS Labs/analytic:	Immuno Map						
	Elixir	X		X			
Data Sustainability	eTRIKS network			X			
Requirements	Requirements gathering	X					

		Connected Health Cii	COPDmap	DIRECT	EMIF	EPAD	esperRare
	Deployment training/support		X				
	Admin training/support		X				
	End-user support		X				
	End-user training		X				
	Custom Development						
	Platform development (e.g. Postgres)		X		X		
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing				X		
	Training						
	Application						
	Development						
ETL Pipelines	Quality control						
	Data curation training		X				
	Data Curation		X		X		
Curation	Curation support		X		X		
Standards	Standards Advice/Training						
	Consent forms						
	Patient rights						
	Data Security	X					
Data ethics, privacy a	Privacy advice						
	Data hosting						
	Data tree modelling		X				
Data management	Data reuse and fairification/Data Catalogue			X		X	
	eHS						
	eTRIKS analytical engine						
	Similarity Network Fusion						
	SmartR		X				
	WGCNA						
	Disease Networks		X				
	Disease Maps						
	HiDome		X				
	eTRIKS version of PLAY DECIDE						
	Galaxy Interface						
	Federated Data Integration						
	XNAT						
eTRIKS Labs/analytic	Immuno Map						
	Elixir						
Data Sustainability	eTRIKS network		X				
Requirements	Requirements gathering				X		

	Deployment training/support			
	Admin training/support			
	End-user support			
	End-user training			
	Custom Development			
	Platform development (e.g. Postgres)			
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing			
	Training			
	Application			
	Development			
ETL Pipelines	Quality control			
	Data curation training			
	Data Curation			
Curation	Curation support			
Standards	Standards Advice/Training			
	Consent forms			
	Patient rights			
	Data Security			
Data ethics, privacy a	Privacy advice			
	Data hosting			
	Data tree modelling			
Data management	Data reuse and fairification/Data Catalogue	X		
	eHS			
	eTRIKS analytical engine			
	Similarity Network Fusion			
	SmarrR	X	X	X
	WGCNA			
	Disease Networks			
	Disease Maps			
	HiDome			
	eTRIKS version of PLAY DECIDE			
	Galaxy Interface			
	Federated Data Integration			
	XNAT			
eTRIKS Labs/analytic:	Immuno Map			
	Elixir			
Data Sustainability	eTRIKS network			
Requirements	Requirements gathering			

		Center for Genomic Research, University of Liverpool	Masterplans	MATURA	Translocation	Oncodesign	Oncotrack
	Deployment training/support		X	X			X
	Admin training/support			X			X
	End-user support					X	
	End-user training					X	X
	Custom Development						X
	Platform development (e.g. Postgres)	X			X		X
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing						
	Training			X			
	Application Development						
ETL Pipelines	Quality control						
	Data curation training						X
	Data Curation						X
Curation	Curation support			X			X
Standards	Standards Advice/Training			X			
	Consent forms						
	Patient rights						X
	Data Security						X
Data ethics, privacy a	Privacy advice						
	Data hosting						X
	Data tree modelling			X			X
Data management	Data reuse and fairification/Data Catalogue						X
	eHS						
	eTRIKS analytical engine						
	Similarity Network Fusion						X
	SmartR						
	WGCNA						
	Disease Networks						
	Disease Maps						
	HiDome						
	eTRIKS version of PLAY DECIDE						
	Galaxy Interface						
	Federated Data Integration						
	XNAT						
eTRIKS Labs/analytic:	Immuno Map						
	Elixir						X
Data Sustainability	eTRIKS network						
Requirements	Requirements gathering						X

		OPTIMISE	Precisesads	Predict-TB	PREPARE	PSORT	Quic-Concept	RA-MAP	SAFE-T
	Deployment training/support		X	X		X		X	X
	Admin training/support		X	X		X		X	X
	End-user support				X			X	
	End-user training				X			X	
	Custom Development		X	X				X	
	Platform development (e.g. Postgres)					X			X
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing		X	X		X		X	
	Training			X		X	X	X	
	Application					X		X	
	Development					X		X	
ETL Pipelines	Quality control			X		X		X	
	Data curation training			X			X	X	
	Data Curation					X		X	X
Curation	Curation support					X		X	X
Standards	Standards Advice/Training			X		X		X	
	Consent forms								
	Patient rights								
	Data Security								
Data ethics, privacy a	Privacy advice								
	Data hosting								
	Data tree modelling							X	X
Data management	Data reuse and fairification/Data Catalogue								X
	eHS			X					
	eTRIKS analytical engine								
	Similarity Network Fusion				X				
	SmartR							X	
	WGCNA				X				
	Disease Networks				X				
	Disease Maps								
	HiDome							X	
	eTRIKS version of PLAY DECIDE								
	Galaxy Interface								
	Federated Data Integration								
	XNAT	X							
eTRIKS Labs/analytic	Immuno Map								
	Elixir					X			
Data Sustainability	eTRIKS network					X			X
Requirements	Requirements gathering			X		X		X	

		Thomson Reuters (4 projects)	TraIT (11 projects)	U-BIOPRED	UK Biobank	Acute Kidney Injury Map	Anaphylaxis Map
	Deployment training/support			X			
	Admin training/support			X			
	End-user support			X			
	End-user training			X			
	Custom Development			X			
	Platform development (e.g. Postgres)	X	X	X			
eTRIKS/transSMART P	Platform troubleshooting/Bug fixing			X			
	Training			X			
	Application			X			
	Development			X			
ETL Pipelines	Quality control			X			
	Data curation training			X			
	Data Curation			X	X		
Curation	Curation support				X		
Standards	Standards Advice/Training			X			
	Consent forms						
	Patient rights						
	Data Security			X			
Data ethics, privacy a	Privacy advice						
	Data hosting			X	X		
	Data tree modelling			X			
Data management	Data reuse and fairification/Data Catalogue						
	eHS			X			
	eTRIKS analytical engine			X	X		
	Similarity Network Fusion						
	SmartR						
	WGCNA			X			
	Disease Networks			X			
	Disease Maps			X		X	X
	HiDome						
	eTRIKS version of PLAY DECIDE						
	Galaxy Interface						
	Federated Data Integration						
	XNAT						
eTRIKS Labs/analytic:	Immuno Map						
	Elixir						
Data Sustainability	eTRIKS network						
Requirements	Requirements gathering			X			

		AsthmaMap	Atherosclerosis Map	Cancer (ACSN)	Cystic Fibrosis Map (CF-MAP)	Lung Cancer Disease Map (LCDM)
	Deployment training/support					
	Admin training/support					
	End-user support					
	End-user training					
	Custom Development					
	Platform development (e.g. Postgres)					
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing					
	Training					
	Application					
	Development					
ETL Pipelines	Quality control					
	Data curation training					
	Data Curation					
Curation	Curation support					
Standards	Standards Advice/Training					
	Consent forms					
	Patient rights					
	Data Security					
Data ethics, privacy a	Privacy advice					
	Data hosting					
	Data tree modelling					
Data management	Data reuse and fairification/Data Catalogue					
	eHS					
	eTRIKS analytical engine					
	Similarity Network Fusion					
	SmartR					
	WGCNA					
	Disease Networks					
	Disease Maps	X	X	X	X	X
	HiDome					
	eTRIKS version of PLAY DECIDE					
	Galaxy Interface					
	Federated Data Integration					
	XNAT					
eTRIKS Labs/analytic:	Immuno Map					
	Elixir					
Data Sustainability	eTRIKS network					
Requirements	Requirements gathering					

		Parkinson's Multiple Sclerosis Map (MS-MAP)	Coronary Artery Disease Map (PD map)	Rheumatoid Arthritis Map	European Respiratory Society
	Deployment training/support				Planned
	Admin training/support				
	End-user support				Planned X
	End-user training				Planned X
	Custom Development				
	Platform development (e.g. Postgres)				
eTRIKS/tranSMART P	Platform troubleshooting/Bug fixing				
	Training				
	Application				
	Development				
ETL Pipelines	Quality control				
	Data curation training				Planned X
	Data Curation				Planned X
Curation	Curation support				Planned X
Standards	Standards Advice/Training				Planned X
	Consent forms				
	Patient rights				
	Data Security				
Data ethics, privacy a	Privacy advice				
	Data hosting				Planned X
	Data tree modelling				Planned X
Data management	Data reuse and fairification/Data Catalogue				
	eHS				Planned X
	eTRIKS analytical engine				
	Similarity Network Fusion				
	SmartR				
	WGCNA				
	Disease Networks				
	Disease Maps	X	X	X	X
	HiDome				
	eTRIKS version of PLAY DECIDE				
	Galaxy Interface				
	Federated Data Integration				X
	XNAT				
eTRIKS Labs/analytic:	Immuno Map				Planned X
	Elixir				
Data Sustainability	eTRIKS network				
Requirements	Requirements gathering				Planned X