D4.1 Training program for Technology Transfer professionals



A4L_ACTIONS

Alliance for Life Sciences: From Strategies to Actions in Central and Eastern Europe

H2020-SC1-2020-Single-Stage-RTD --964997

D4.1 Training program for Technology Transfer professionals

Work Package: Task: Deliverable due date: Responsible partner: Editors: Deliverable number: Deliverable type:

Dissemination level:

First Created:

Last Updated: Version: WP4 T4.1 31/07/2022 LIOS Dace Karkle, Maija Dambrova, Osvalds Pugovics D4.1 Report **PUBLIC** 13/07/2022 13/02/2023 2.0



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 964997. This document reflects the view of Alliance4Life's consortium and the European Commission is not responsible for any use that may be made of the information it contains.

Table of Contents

1	INTRODUCTION	3
2	METHODOLOGY	4
	2.1 Survey on KTO topics	4
	2.2 RESULTS OF THE SURVEY	5
3	TRAINING PROGRAM	6
	3.1 The first training event in LATVIA, M9	6
	3.1.1. The program of the first training event	7
	3.1.2. The learning outcomes of the first training event	9
	3.2 The second training event in POLAND, M24	10
	3.3 THE THIRD TRAINING EVENT IN CROATIA, M33	13
4	CONCLUSION	15
5	ANNEXES	16
	5.1 ANNEX 1: RESPONSES FROM A4L_ACTIONS MEMBERS	16
	5.2 ANNEX 2: EXAMPLE OF CERTIFICATE	18

1 INTRODUCTION

The Alliance4Life aims to increase the local and regional impact of Health Research and Innovation in Central and Eastern Europe (CEE). In order to accomplish this mission, the A4L ACTIONS project (No. 964997) covers, among others, building competence and connections of the CEE health research institutions for translation of health research outcomes into innovation, development of regional biotech and biomedicine innovation ecosystems and bridging the gap between the industry and academia. D4.1 Training program for Technology Transfer professionals is a public deliverable of the A4L ACTIONS project. It falls under the work package WP4 - Competences in Innovation for Human Health (Lead: LIOS). The core of this WP is to bring together industry and academia, outline challenges, expectations and share the best practices in terms of future collaboration, co-creation and coinnovation. This deliverable is the initial outcome of the Task 4.1. Workshops for Technology Transfer professionals (Lead: LIOS, Partners: all, M1-M33), which aims to develop and conduct the training workshops for the Knowledge and technology transfer (KTO) professionals of the A4L ACTIONS Consortium member institutions. The comprehensive training program of D4.1. is expected to considerably excel the knowledge of KTO professionals at the Alliance4Life universities and research institutions, which is essential for bringing research results to market for the ultimate benefit of society.

2 METHODOLOGY

2.1 SURVEY ON KTO TOPICS

In line with the description of *Task 4.1. Workshops for Technology Transfer professionals*, during the first 6 months of the Project the survey was conducted among the *Focus Group # 6. Knowledge and technology transfer* (FG6) members on the most important training topics related to knowledge and technology transfer (see the survey in Figure 1). Each project partner was asked to rank the topics in priority order in terms of relevance for institutional knowledge build-up, where 1 stands for the most important and urgent topic and 11 for the least important topic. In case several FG6 members represented one institution, they were asked to submit a consolidated response. The survey was conducted in June, 2021.

Survey on Knowledge and technology transfer topics for training

Grant Agreement # 964997 A4L_ACTIONS Alliance for Life Sciences: From Strategies to Actions in Central and Eastern Europe Task 4.1 Workshops for Technology Transfer professionals

Please rank the following training topics in the order of relevance for you, where 1 – the most important and urgent topic, 11 – the least important topic.

#	Training topic	Rank
1	Drafting the institutional Knowledge and technology transfer	
	policies and strategies	
2	Drafting the institutional IPR policies and strategies	
3	Technology assessment (technical and economic feasibility) and	
	drafting Unique Value Proposition	
4	Technology valuation (incl. calculation of risk adjusted NPV)	
5	Technology marketing	
6	Technology and knowledge transfer modes (pros, cons and	
	applications)	
7	IP management	
8	Key terms and contractual provisions of licensing agreements/IP	
	assignment agreements/contract research	
	agreements/NDAs/MTAs	
9	Specifics of spin-outs and spin-offs	
10	Negotiation skills	
11	Other – please specify	

Figure 1 FG6 member Survey questionnaire on KTO topics

2.2 **RESULTS OF THE SURVEY**

12 responses from each A4L_ACTIONS project partner were collected (see Annex 1), and the aggregated survey results (Figure 2) were used to identify the most relevant topics for the KTO professionals.

Торіс	Points	Rank		
Negotiation skills	38	1		
Technology valuation (incl. calculation of risk adjusted				
NPV)	41	2		
Technology marketing	52	3	◀───	
Technology and knowledge transfer modes (pros, cons				
and applications)	57	4		
Technology assessment (technical and economic				
feasibility) and drafting Unique Value Proposition	61	5		
Key terms and contractual provisions of licensing				
agreements/IP assignment agreements/contract research				
agreements/NDAs/MTAs	62	6		
Specifics of spin-outs and spin-offs	62	7		
IP management	90	8		
Drafting the institutional Knowledge and technology				
transfer policies and strategies	97	9		
Drafting the institutional IPR policies and strategies	98	10		
Market evaluation, Company search				
How to motivate researchers to participate in IP and				
innovation initiatives (the self-marketing of TT units)				

Figure 2 FG6 Survey results on KTO topics

In consultation with FG6 members and with the help of associated partner of A4L_ACTIONS project ASTP (the leading European knowledge transfer association committed to knowledge transfer among universities and industry), the topics were grouped in closely related blocs and distributed in logical order across all three training events foreseen in the Grant Agreement, to ensure gradual and coherent build-up of KTO professionals' knowledge (Figure 3). The three training events foreseen under Task 4.1. are:

- M9, January 2022 (Latvia)
- M24, April 2023 (Poland)
- M33, January 2024 (Croatia).

Торіс	Rank	Priority	Remarks	
Negotiation skills	38	1		
Technology valuation (incl. calculation of risk adjusted				
NPV)	41	2		Riga, M9
Technology marketing (+ self-marketing of TT units to				
motivate researchers to innovate)	52	3	To be addressed by external	Poland, M24
Technology and knowledge transfer modes (pros, cons			To be addressed by external	
and applications)	57	4	expertise (e.g. ASTP speakers) in three A4L FG6 events	Croatia, M33
Technology assessment (technical and economic			(January 2022 (LV), April 2023	
feasibility, incl. market evaluation & company search) and			(PL), January 2024 (HR))	
drafting Unique Value Proposition	61	5	(PL), January 2024 (HR))	
Key terms and contractual provisions of licensing				
agreements/IP assignment agreements/contract research				
agreements/NDAs/MTAs	62	6		
Specifics of spin-outs and spin-offs	62	7		
IP management	90	8	To be addressed by internal	
Drafting the institutional Knowledge and technology			To be addressed by internal exchange of best practices in	
transfer policies and strategies	97	9	• ·	
Drafting the institutional IPR policies and strategies	98	10	regular FG6 meetings	

Figure 3 The distribution of selected KTO topics along the KTO training events during the implementation period of A4L_ACTIONS project

Due to the fact that ASTP, the associated partner of A4L_ACTIONS, is the premier association of Knowledge Transfer professionals in Europe, and concentrates the expertise and competence on the knowledge and technology transfer, FG6 members decided that detailed program of each training event should be developed in close collaboration with ASTP. To add credibility to the training and the body of knowledge developed, training program should include award of Continuing Education (CE) points, which are relevant for recognition of the Registered Technology Transfer Professional RTTP¹ qualification for knowledge transfer professionals.

3 TRAINING PROGRAM

3.1 THE FIRST TRAINING EVENT IN LATVIA, M9

In line with Description of Acton (DoA) of A4L_ACTIONS project, 24 KTO professionals from A4L partnering institutions participated in the first training event held in Riga on 20 - 21 January 2022 to boost their expertise and develop relevant sills in technology transfer domain. Due to COVID-19 pandemic situation, the training was organized as an online event. Participants included representatives from Technology Transfer and Innovation offices, business development managers and researchers.

According to survey results (see Figure 3 above), the first training event was devoted to fundamentals of technology transfer including practical specifics of spin-outs and spin-offs.

¹ https://attp.global/

MODULE	FUNDAMENTALS OF TECHNOLOGY TRANSFER								
Thematic areas	Technology and knowledge transfer modes (pros, cons and applications) Key terms and contractual provisions of licensing agreements/IP assignment agreements/contract research agreements/NDAs/MTAs Specifics of spin-outs and spin-offs								
Timing	20 – 21 January 2022								
Place	Riga, Latvia								
Format	On-line								
Duration	2 days								
Target audience	FG6 members (up to 30 participants)								
Lecturers	Bernard Denis, ASTPhttps://www.astp4kt.eu/about-us/committees/professional- development-committee/bernard-denis/LauraSpinardi,ASTPhttps://www.astp4kt.eu/about- us/committees/professional-development-committee/laura- spinardi/								
Accreditation	8 Continuing Education (CE) points								

3.1.1. The program of the first training event

Day 1, Patenting and licensing

08.45 - 09.30 Course introduction

Getting to know your trainer and your fellow colleagues as well as course overview.

09.30 - 10.30 Finding and evaluating technology opportunities and exploitation strategies – Very few of the disclosures we receive are likely to form the basis of a good patent – fewer still (maybe 1 in 10) have any commercial potential. Moreover, we simply do not have the time to simultaneously manage too many projects. How then should we: scout, screen, evaluate, and rank the disclosures and opportunities we receive? What exploitation scenario and strategy are most suitable? How should we reject the ones that we decide not to pursue?

10.30 – 10.45 Break

10.45 – 11.30 Patenting: strategy and inventor engagement

An overview to planning an optimum patent strategy which sets up a collaborative relationship with the inventors so you can manage their expectations along the life cycle of a patent.

11.30 - 12.15 Licensing

This session explores the more complex aspects of the what, why and how of licensing and addresses some of the common matters you need to take into consideration when negotiating a licensing deal.

12.15 - 13.00 Lunch

13.00 - 13.15 Presentation of the Licensing Exercise

13.15 - 14.15 Licensing Exercise – online group work

This session offers a general introduction to the what, why and how of licensing and addresses some of the common matters you need to take into consideration when negotiating a licensing deal.

14.15 – 15.00 **Debriefing: Licensing Exercise**

Day 2, Spin- offs

09.00 – 10.00 Introduction to academic spin-offs

This session will provide a basic overview of the different steps needed to create an academic spin-out covering topics such as: bringing the right team together, valuing the technology, and writing a business plan.

- **10.00 11.00** Basics of spin-off financing This session will focus in on early-stage financing of academic spin-offs covering business model development, financing stages, equity, valuation and attached rights
- 11.00 11.15 Break

11.15-12.45Spin-off case study - online group work
(pre-reading required)
Defining an acceptable and fair proposal for all involved: direct and indirect, internally
and with partners, including distribution between university, inventors and investors.

12.45 - 13.45 Lunch

13.45 - 14.30 Technology transfer through research collaborations

More than 95% of the knowledge transfer from academia to industry takes place in your day-to-day research collaborations. In this exercise, learn more about the expectations of industry and academia when setting up a research collaboration and about the expectations of industry.

- 14.30 15.15 Case study debriefing: Academic Spin-off
- 15.15 15.30 Q&A for the day & Wrap up

3.1.2. The learning outcomes of the first training event

The following learning outcomes were achieved from the first training event:

- The participants were provided with a set of concepts, methodologies and resources to identify and evaluate the technology transfer opportunities, e.g., *KT Triage* evaluation approach, and with the list of relevant patent data bases and reports.
- Decision guidelines were provided to the participants on the Exploitation strategy choices between spin-off/licensing/IP Assignment options.
- A list of practical tips and tricks were delivered to KTO professionals to engage researchers in the patenting process.
- A list of relevant components of licensing agreements were analysed, enabling the
 participants to draft term sheets of the agreements. The elements covered subject
 matter, ownership and development status, term, scope, field, territory, duration,
 right to improvements, exclusivity, sublicensing, reporting, performance, option
 agreements, necessity for grant back clauses, payment structure (upfront (lumpsums), equity, milestones, royalties), and termination.
- A particular attention was devoted to the spin-off establishment. The participants learned how to build the spin-off team, what are the different roles of participants in the team, shareholder structure, and they received the information about business plan development, financing of spin-offs and types of investors.
- Two case studies on licensing and establishment of a complex university spin-off were resolved by the interactive group work. Thanks to case studies the participants acquired practical skills of drafting and negotiating licensing agreements, and their understanding of important aspects and complexities involved in the establishment of spin-offs was enhanced..
- The participants were granted access to extensive learning materials, e.g., term sheets for licensing agreements that can be used in professional life as a check box to make sure that all relevant terms and conditions of the licensing agreement are present.

At the end of the training 8 CE points were awarded to 24 participants of the seminar, thus adding to the credibility of the knowledge and skills acquired by the KTO professionals at the A4L partnering institutions.

To maximise the impact of training, one of the crucial subtasks of T4.1. is to "train the trainers". The knowledge and skills that KTO professionals acquired during the first seminar in Riga as well as two subsequent events in Poland and Croatia have fully met this approach. The trained KTO professionals are able to engage with researchers and use the ESR Retreats and Skills Academies (WP3) for translating the technology transfer (TT) core knowledge to researchers through inclusion of short lectures on the TT topics as planned in the Description of Action. In addition, a spill-over effect of the best practices on the national research systems is expected, as the obtained knowledge will be passed to researchers including PhD students and early stage researchers in the A4L_ACTIONS project partner research institutions and universities.

On 29.04.2022. FG6 members (A4L KTO professionals) held a dedicated session on **reflections of Riga Training event and lessons learned for the next events** at the University of Tartu. It was agreed that the training level provided by ASTP in Riga was of very high quality. Therefore, ASTP should be considered as a provider of the training for the remaining two KTO professionals' events (M24 (Poland), M33 (Croatia)). It was also agreed that the rest of the programme should be based on the topics for KTO professionals' training prioritized by the survey conducted at the very beginning of A4L project (Figure 3 above). The topics of negotiation skills and marketing should be covered in the next event, which will be organized at the Medical University of Lodz in April 2023.

MODULE	NEGOTIATION AND MARKETING						
Thematic areas	Negotiation skills						
	Technology marketing (+ self-marketing of TT units to motivate						
	researchers to innovate)						
Timing	April 2023 (exact dates to be confirmed)						
Place	Lodz, Poland						
Format	On-site						
Duration	2 days						
Target audience	FG6 members (up to 30 participants)						
Lecturers	Bernard Denis, ASTP						
	https://www.astp4kt.eu/about-us/bernard-denis						
	Laura Spinardi, ASTP						
	https://www.astp4kt.eu/about-us/laura-spinardi						
	Jeff Skinner, ASTP						
	https://www.astp4kt.eu/about-us/committees/jeff-skinner						
Accreditation	8 ² Continuous Education (CE) points						

3.2 THE SECOND TRAINING EVENT IN POLAND, M24

Day 1, Marketing and Business Development

09.00-10.00 What academics need from us

We have two 'customers'. First, the downstream external organisation/ business that invests and ultimately takes a technology to market. Second, the upstream academic who owns the expertise and technology – and needs our help to find and warm up enthusiastic partners.

In this session we have the opportunity to quiz a particularly engaged academic who is in the middle of commercialising her technology and has reflected on the support that it would have been wonderful to have at the outset of her project.

10.00-11.00 Knowing the right people to 'market' to

² indicatively

Having figured out the action plan we need to 'get the hell out of the building' and start connecting, contacting and influencing potential partners, industry gurus and opinion leaders – the people who may be part of our network and value chain. This is 'market research' but it is also 'marketing'. In this session, we use two or three examples to explore what is involved, and the techniques we should use to identify the right companies and people, how to contact them and how to build their interest.

11.00-11.30 Break

11.30-12.15 Corporate resistance to Innovation

Businesses can take a frustratingly long time to invest in a new innovation. This is true even when there is enthusiasm from your initial contacts. This 'slowness' can seem irrational and is often frustrating – but it's a fact of life. We use a semi-fictional case study to diagnose the reasons for this resistance and develop strategies for overcoming them.

12.15-13.15 Sales tactics

We like to believe that conversations with potential partners build their own momentum and that - if all goes well – they will eventually agree to a deal of some kind. Well, maybe, but the sales professionals have a myriad of tactics to ensure they're talking to the right people, inject a sense of urgency and scope (and price) the project early, thereby weeding out 'tyre-kickers' early.

For this session, we have invited a sales professional with years of experience in both industry and university settings to share some of the tactics he has advised everyone to use.

13.15-14.15 Lunch

14.15-15.15 Structuring the relationship

Once we have started to build a relationship it can increase in scope very quickly – particularly if the researcher sees eye-to-eye with their opposite number (research leader) inside the company. The first engagement will probably be informal with little exchanged other than non-confidential information and insights. However, if it grows then the TT manager needs to ensure that it avoids conflict of interest & liabilities as well as providing a fair return to the university.

In this session we explore how to structure relationships ahead of a formal contract.

15.15-16.15 Developing longer term alliances

All universities want to build longer-term relationships with businesses (strategic account management) to move beyond negotiating a series of smaller projects into something altogether more 'strategic' and broader. This could involve a major investment in research infrastructure based on trust and mutual understanding or a framework agreement. In this session, we ask how one university grew a single studentship into a major alliance over a number of years, examining the things they did properly, as well as the things that could have derailed the relationship.

16.15-16.30 Summary and wrap-up

Day 2, Negotiations Skills for KTOs

09.00 - 09.15 Course introduction

Getting to know your trainers as well as course overview.

09.15 - 10.30 Introduction to Negotiation Theory and Tools

This session first introduces the concept of principled negotiation aimed at achieving "win-win" deals. Real live negotiations however include both cooperative and competitive elements. The session will then explore the tension between value-creating and value-claiming strategies. The session will end with some guidelines on how to prepare negotiations.

10.30 - 10.45 Break

10.45 - 11.00Introduction and clarification of the role playPresentation of the role-play, a two-parties scored integrative negotiation.

11.30 - 12.00Negotiation role-play
Negotiation preparation (15 minutes)
Negotiating the case and communicating the results (45 minutes)

12.00 - 13.00 Lunch

13.00 -13.30Negotiation role-play debriefing
Results discussed and presented on the integrative zone of possible agreements.

13:30 - 14:00 Online negotiations

In practice commercial negotiations are made of a series of negotiations parts or rounds using face to face meetings but also different media and technologies including e-mails and videoconferences. Being able to choose wisely among the different modes requires careful consideration of the advantage and disadvantages that go along with each of these.

14.00 – 14.30 Non-verbal communication

Your body is saying a lot about you. The goal of this session is to make people aware of what their body tells the other party and give an introduction on how to observe the other party in a negotiation and determine the meaning of nonverbal clues in this setting.

14.30 – 15.00 Break

15.00 – 16.00 Power in negotiations

There are different sources of power in negotiations. This session first discusses the different elements of power in negotiation. The second part describes some techniques and dirty tricks that are used to shape perception during negotiations.

16:00 – 16:15 Summary and wrap-up

MODULE	TECHNOLOGY VALUATION						
Thematic areas	Technology valuation (incl. calculation of risk adjusted NPV) Technology assessment (technical and economic feasibility, incl. market evaluation & company search) and drafting Unique Value Proposition						
Timing	January 2024 (exact dates to be confirmed)						
Place	Zagreb, Croatia						
Format	On-site						
Duration	2 days						
Target audience	FG6 members (up to 30 participants)						
Lecturers	To be confirmed						
Accreditation	8 ³ Continuous Education (CE) points						

3.3 THE THIRD TRAINING EVENT IN CROATIA, M33

Day 1, IP valuation

09.00 - 09.30 Course introduction

Getting to know your trainers as well as course overview.

09.30 - 10.45 IP valuation

An overview as to why intellectual property valuation matter. The concept of expected value will be elaborated as well as basic IP valuation methods will be presented (market method, cost method and the discounted future economic benefits (DFEB) method).

10.45 – 11.15 Break

11.15 – 13.00 Valuation of licenses

This session will offer the overview of typical license payment structures and financial terms in a license agreement. We will identify the benefit, we will learn how to analyze and allocate the benefit correctly. Finally, the typical royalty rates will be presented.

13.00 - 14.00 Lunch

14.00 - 15.30 Valuation of spin-outs (vs. valuation of licenses)

The basic valuation methods of equity investments will be presented, the differences and similarities of spin-out vs. license evaluation will be analyzed.

15.30 – 16.00 Break

16.00 – 17:00 Valuation social benefits from knowledge and technology transfer The ultimate goal of many technology transfer arrangements is to maximize socioeconomic benefit of public research results. We have been dealing with quantification of economic and financial benefits so far, but what about social

³ indicatively

benefits? Some thoughts on evaluation of social benefits will be presented in the last section of the training module

Day 2, IP valuation ctd.

09.00 - 10.45 The Discounted Future Economic Benefits (DFEB) Analysis

DFEB overview and basic arithmetic for a DFEB analysis will be presented. In this session we will try to answer the questions of what are economic benefits and we will try to project the expected benefits. The scenario analysis, decision trees and the concept of probability weighted net present value will be presented. Finally, a discount rate will be developed.

- 10.45 11.15 Break
- 11.15 11.45 Presentation of the DFEB Exercise
- **11.45 13.00 DFEB Exercise group work**

 This session offers a hands on exercise to develop .xls valuation models to assess the technology.
- 13.00 14.00 Lunch
- 14.00 15.00 DFEB Exercise group work ctd.
- **15.00 16.00 Debriefing: DFEB Exercise** The outcome of the group work of DFEB exercise will be presented and different solutions/approaches will be analyzed.
- 16:00 16:15 Summary and wrap-up

4 CONCLUSION

Detailed training program has been developed by FG6 members in close collaboration with A4L_ACTIONS associated partner ASTP. At the time of the submission of D4.1. the first training event in Riga, Latvia is already conducted and 24 training certificates (see example of the certificate in annex 2) were issued by ASTP to the FG6 members. Due to the fact that the last training module in Croatia is planned in 18 months time, it will be discussed and fine-tuned by FG6 members and ASTP in line with the very recent updates and trends in the field. In total, 24 CE points indicatively shall be awarded to the participants of all three training modules of the program.

It is expected that upon completion of the training program, the KTO professionals of A4L_ACTIONS member institutions will be equipped with relevant knowledge and expertise in the field of knowledge and technology transfer to facilitate bridging the gap between academia and industry as well as to maximize the socio-economic benefit of A4L_ACTIONS partners' research results.

5 ANNEXES

5.1 ANNEX 1: RESPONSES FROM A4L_ACTIONS MEMBERS

Торіс	UMFCD	BMC SAS	CEITEC MU	FNUSA ICRC	MUL	MUS	UL	SU	UT	UZSM	VU	LIOS	Total
Drafting the institutional Knowledge and technology transfer policies and strategies	2	6	10	9	8	10	10	9	10	7	6	10	97
Drafting the institutional IPR policies and strategies	1	8	11	9	9	9	9	10	9	8	6	9	98
Technology assessment (technical and economic feasibility) and drafting Unique Value Proposition	3	9	1	9	10	4	3	5	7	3	2	5	61
Technology valuation (incl. calculation of risk adjusted NPV)	4	3	2	8	2	1	4	2	4	5	2	4	41
Technology marketing	9	5	4	4	4	3	7	3	6	1		6	52
Technology and knowledge transfer	7	1		9	3	7	5	8	3	6	1	7	57

modes (pros, cons and applications)													
IP management	10	7	9	9	5	8	8	4	8	10	4	8	90
Key terms and contractual provisions of licensing agreements/IP assignment agreements/contract research agreements/NDAs/MTA s	8	2	3	9	6	6	6	6	5	9	1	1	62
Specifics of spin-outs and spin-offs	5	10	7	3	7	7	2	7	2	4	5	3	62
Negotiation skills	6	4	6	9	1	2	1	1	1	2	3	2	38
Market evaluation, Company search			5										5
How to motivate researchers to participate in IP and innovation initiatives (the self-marketing of TT units)													

5.2 ANNEX 2: EXAMPLE OF CERTIFICATE





ASTP hereby declares that

Dace Karkle of Latvian Institute of Organic Synthesis

has taken part in the ASTP training course

'Fundamentals of Technology Transfer'

< ATTP recognised 8 continuing education (CE) points >

held online on 20 & 21 January 2022

