

SIM – Systematic Innovation Methodologies

Work Packages and Budget Allocation

Hans-Gert Gräbe, Leipzig

Version of 17 February 2020

The Full Partners

Country	name of institution	representative	type
Germany	Uni Leipzig	Hans-Gert Gräbe, Thomas Neumuth	HEI
France	INSA Strasbourg	Denis Cavallucci	HEI
Germany	HS Offenburg	Pavel Livotov	HEI
Romania	UTC Cluj-Napoca	Stelian Brad	HEI
Finland	LUT Lappeenranta	Leonid Chechurin	HEI
Germany	Schaeffler AG	Armin Lau, Thomas Fuhrmann	Industry
Romania	Arxia SRL	Daniel Homorodean	SME
Romania	Tehnoprod Plast SRL	Lucian Moraru	SME
Austria	Jantschgi C&R	Jürgen Jantschgi	SME
Belarus	Target Innovation Minsk	Nikolay Shpakovski	SME, PA

PA means *Partner Country*, below TE means 1000 Euro.

State of Partners' registrations within the EU Database

Partners need to have a valid EU PIC Code and HEI partners also a valid ERASMUS Charter EHCE. The last column is about the partner letter that is required by our University administration to sign the application on behalf of the consortium as *applicant*.

Nr.	Name of institution	type	PIC	Partner letter	Key staff
P01	Leipzig University	HEI	999854564	–	4
P02	INSA Strasbourg	HEI	998731110	13.02.2020	5
P03	HS Offenburg	HEI	961360405	04.02.2020	3
P04	UTC Cluj-Napoca	HEI	999897244	10.02.2020	
P05	LUT Lappeenranta	HEI	999591209	13.02.2020	4
P06	Schaeffler AG	Industry	946808562		2
P07	Arxia SRL	SME	898474238	06.02.2020	1
P08	Tehnoprod Plast SRL	SME	996553363	11.02.2020	
P09	Jantschgi C&R	SME	951782043	08.02.2020	4
P10	Target Invention Minsk	SME	895838166	06.02.2020	4

Note that I resorted the numbers in accordance with the listing in the eForm.

Budget Planning

The calculation of eligible costs (Programme Guide pp. 138–141) is quite straightforward: There is a special amount per day for four different categories that can be spent. Each person that gets funding has to be employed by one of the full partners and has to deliver a time sheet (signed by the responsible at partner site) about the work done for the project.

It should be noted that the KA grant is designed as a *subsidiary support* based on fixed costs, i.e., it does not cover the entire project costs. Whereas in the past, plausible total cost planning was required in addition to planning the funding amount, the EU has changed this with this type of funding and only requires the submission of the time sheets to prove that the money was spent according to the regulations. E.g., a 0.5 (20 h) young researcher position for a year (paying according to tariff as required by a public institution like university) counts in Germany with about 45 TE while 130 person days (the same amount of time) are supported with 30 TE.

Note moreover that the same work in different European regions is funded with different funding rates (Programme Guide pp. 138–141). The equal financial treatment of the partners envisaged in the planning so far leads to massive imbalances in the time shares when converted into person-days, which makes the project as a whole appear unbalanced and cannot be explained plausibly. I have therefore recalculated the individual parts once again by applying a scaling factor of 0.3 for partners P4, P7, P8 and P10 in accordance with the ratios in the table. In the following, I use the notion A and B countries.

Budget per Work Package and Mobility Activities

Part of the grant can be spent for funding mobility activities (i.e., for clear teaching activities at one of the sites). I have designed such a mobility activity as project part in WP 4 generalizing the experience of Denis with his summer schools. WP 4 defines in more detail a mobility program „train the trainers“ with 6 teaching units (3 days each) at 6 different locations in order to present the different methodologies of the individual partners in such teaching units. Trainings can be supported only for attendees from project members (275 Euro travel expenses + 300 Euro subsistence cost = 575 Euro per attendee and training).

I count with 20 grants per training, hence I have planned $575 \cdot 20 \cdot 6 = 69\,000$ Euro according to the calculation basis, the remaining 931\,000 Euro are allocated to the WP in accordance with the different importance of the WP for our aims.

There is a [link to the \(preliminary\) Budget Distribution](#) at the SIM page.

Main Activities – SCRUM Epics

The Work Package structure required for submission is structured along the different *types of activities* to be considered in the project plan. This destroys the content logic of the main activities, because all these activity types (implementation, dissemination, evaluation) must be brought together in *each of these main activities*. However, this means that the main activities must be composed in such a way that they are distributed over several WPs on the one side, and as different shares to the project partners on the other side.

In order to present this consistently in the application logic, I will classify these main activities as *SCRUM Epics* and thus make direct use of the SCRUM terminology¹ as process methodology. Such epics offer the possibility to pre-structure a project, which will then be refined step by step in the *Project Backlog* into stories, which in turn will be prioritized and transferred to the respective *Sprint Backlog*, where they are broken down into tasks and assigned to individual assignees for processing.

In the following such main activities (resp. activity templates – if there are several activities following the same scheme) are defined as SCRUM Epics.

Epic E1: SIM-SSN. Plan, design, implement, run and improve a semantically supported decentralized digital infrastructure. This includes questions of ontology for teaching activities. This has to be done in several steps – requirements analysis, architectural design, design, implementation, operation – over several project sprints. Adopt SCRUM to realise that, emphasizing on rapid prototyping and evolutionary development. See WP 2 for a more detailed description.

Relates to WP 1 (bootstrap of the infrastructure), WP 2 (main part), WP 7 (use for dissemination)

Epic E2: Development of courses and teaching materials. Process Template: Develop, pilot, publish, evaluate, promote.

The steps should be distributed over several sprints using a common principle. There is a partner who plans to contribute such an activity (assignee in the following).

Main activity is „develop, pilot, publish“ during a single sprint by the assignee. The deliverable has to be approved on a project meeting. The assignee of the task gets a share from WP 3 for that.

Additional activity evaluation: The WP 9 development group develops a template how evaluation of such a course or material has to be done, the assignee initiates that template for his course, runs evaluation and gets a share from WP 9 for that.

Additional activity promotion: The WP 7 story 7.2 group takes that as input and incorporates that into their overall activities (dissemination as an integrated activity).

Relates to WP 3, evaluation to WP 9, promotion to story 7.2 in WP 7.

Epic E3: Extend existing Digital Tools. Template: Use, collect requirements, redesign, evaluate, promote.

The steps should be distributed over several sprints using a common principle. A small enhancement could be realised within a single sprint, larger developments require more time.

This is a generic template to be applied to INSA-Tools (PICC, FINDER, PhysiSolve and SimplySolve), CEPHEI (LUT), TRIZ-Trainer (TIM), UTC platform.

This needs real cooperation between partners. As far as I understand each of these 4 partners is ready to set up such a cooperation project.

Relates to WP 10 (I renamed it to "Digital Tools"), promotion to WP 7.

¹<https://www.knowledgehut.com/blog/agile/what-is-an-epic-agile>

Note that many parts of the project are related to digital tools and we need to concentrate and build up expertise (as "cross-cutting skills") in that direction for almost all parts of the project. The improvement of the IT basis is required, firstly for cooperation in the network (SIM-SSN), and secondly as a basis for e-learning, which is also about content and dissemination, and thirdly for the use case database (next epic). This requires experienced technical experts, who are relatively expensive. This goes beyond the scope of this epic and has to be addressed as cross-cutting challenge in the project (idea: in due time apply for other funding).

Epic E4: Development of a semantically based use case collection as OER. Use cases is the core of almost all concepts teaching SIM to give not only theoretical advice but also practical insight. Hence use case collections of different quality exist at all locations where SIM is taught.

Large preliminary work exists here (to my knowledge) in particular at INSA and TIM.

The aim of this epic is to compile a common use case database as a first class OER to be maintained cooperatively. The problems to be settled are similar to any collection of exercises and solutions – the exercises may be publicly shown, the solutions have to be maintained in a way that keeps them internally to the trainer staff. Here several challenges are yet to be settled. In particular we can start to collect the use case challenges only, keeping the solutions internally. Such distributed knowledge bases are best supported by advanced RDF concepts, see, e.g., the Linked Enterprise Data Services (LEDS) Project² at Leipzig University.

To collect these data a commonly accepted ontology is required. Moreover I would suggest to separate questions about that data base from questions about teaching services. This could equally be a *basic* data base of use cases, recommending to follow a certain structure also for the internal data bases. Partners can operate larger data bases using that structure, add additional confidential information etc. All this is supported by RDF based Semantic Web concepts.

Relates to WP 3, WP 2 and 10 (for the technical part), promotion to WP 7, collecting new use cases also to WP 5.

Epic E5: Enlarging the Network. The partners currently involved in the project as full partners are only a small part of the potential that already exists or can be activated to spread SIM skills around Europe. The KA initiative is mainly based on HEI structures and brings together a number of HEI where longer traditions in SIM teaching already exist.

With ETRIA, a Europe-wide forum already exists, which is mainly focused on the coordination of top-class SIM research. Several of the leading heads of our project are also intensively involved with ETRIA. ETRIA is thus an important platform for expanding the network, especially into the academic field. This is a first component of an expansion strategy.

A second component of an expansion strategy is aimed at companies in the HEI partner environment. All HEI partners have their own industry contacts and also own small companies around.

A third component of an expansion strategy relies on multiplier effects between industrial companies themselves or the inclusion of chamber structures in the dissemination, as offered

²<https://www.leds-projekt.de/>

by the CCI Heilbronn in its LoI.

The focus of the expansion strategy is on contacts in the industrial sector, whereby a further distinction must be made between companies from the manufacturing sector as *users of SIM*, which are more interested in the direct qualification of personnel, and companies from the consulting and training sector as *providers of SIM as a service*, that benefit more from "train the trainers" concepts.

Appropriate concepts for reaching the target groups would first have to be developed within the project and then rolled out.

Epic E6: Development of industrial-grade tools. Both for advanced teaching and consultancy: use, collect requirements, redesign, evaluate, promote.

I know such tools as FINDER (INSA) and Solving Mills (TIM), but have no idea if such an epic is well placed within an ERASMUS proposal.

Relates to WP 5, promotion to WP 7, has to be subsumed in E3 (no free share left).

Epic E7 (a non-epic): The Central German SIM teaching infrastructure. Within the WUMM Project in Central Germany («Mitteldeutschland», this is a regional context around Leipzig) we started already to develop a regional SIM teaching infrastructure. My activities to set up this proposal is clearly a part of these efforts.

Although a big story for Leipzig, this is only a byproduct of the project and cannot be financed at large from ERASMUS funds, but should be considered for dissemination as best practice. Such a best practice (if successfully implemented in our region) relates to aim 6 "support other HEI's in setting up appropriate training and further education offers".

WP 1: Project Initialisation (PREP), Lead: ULEI

Story 1.1: A more detailed analysis of the teaching offers of the partners

At the very beginning of the project we conduct a more detailed analysis of the teaching offers of the individual partners. This analysis already begins in the phase prior to project approval and is in principle completed in the first two months of the project.

In the preproject phase, it will already be agreed how this work is to be structured exactly. The partners provide the lead of the WP with the corresponding work, who then compiles a first document for P1 and prepares a more detailed deliverable for P2 that serves also as input for WP 2.

This relates to epic E1.

Output: a pdf text document. Dissemination: public.

Outcome: A better common understanding what the HEI partners really are doing. Input for WP 2 and WP 5, Story 5.2.

Share for contributions 30 TE (A: 4 TE, B: 1.500 TE), additional 6 TE for the compilation of the delivery by ULEI.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	4	30		6	9996
INSA	2	12			3756
HSO	2	12			3756
UTC	2	15			1532
LUT	2	12			3756
Schaeffler	2	12			3756
Arxia	2	15			1532
TPlast	2	15			1532
Jantschgi	2	12			4174
TI Minsk	2	15			1532
					35322

Story 1.2: Bootstrapping the (digital) cooperation structure and infrastructure

This is mainly due to ULEI that hosts the digital infrastructure and focuses on developing the appropriate tools for project-internal cooperation. The HEI partners are the key partners since they operate the core of the digital infrastructure (see WP 2) and have to organise the roll out of the infrastructure in their local area of responsibility. The other partners have to set up access to the infrastructure for their staff.

Output: Project share at github, web presentation, web tools to deliver content.

Outcome: A smoothly running project infrastructure.

ULEI together 21 TE for the much greater overhead in the bootstrap process as applicant, share for the A-HEI 3 TE, for UTC, Jantschgi, Schaeffler 1 TE, for the others 0.5 TE.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	4	20	70	6	21006
INSA	2	9			2985
HSO	2	9			2985
UTC	2	9			1004
LUT	2	9			2985
Schaeffler		4			1028
Arxia	3	2			494
TPlast	3	2			494
Jantschgi	2	1			995
TI Minsk	3	2			494
					34470

WP 1 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	8	50	70	12	31002
INSA	4	21			6741
HSO	4	21			6741
UTC	4	24			2536
LUT	4	21			6741
Schaeffler	2	16			4784
Arxia	5	17			2026
TPlast	5	17			2026
Jantschgi	4	13			5169
TI Minsk	5	17			2026
					69792

WP 2: Networking the Knowledge Alliance (IMP), Lead: LUT

This part requires many soft contributions, which cannot be cast in concrete stories, but rather have an atmospheric character. Therefore, the only point in this package, which is to be promoted with a project share, is the development of an appropriate digital support infrastructure.

Story 2: Develop and set up the SIM-SSN

This relates to Epic E1. Within this story,

- (1) the results of WP 1 have to be prepared and structured according to a course ontology to be agreed upon the partners and prepared for machine processing.
- (2) Uniform open source tools have to be developed to manage the data locally at the HEI partners in *SIM-SSN Nodes*. The data from different locations can be combined by means of tools to form different overall views – the *SIM-SSN Cloud*.
- (3) With this decentralized architecture, which can easily be extended to other partners, a decentralized data updating is combined with the possibilities of centrally available presentation and search structures. The architecture implements advanced Semantic Web technologies based on RDF.
- (4) To sustain that development, a *SIM-SSN competence centre* shall be established to develop the node architecture and to support the partners in its operation. This can be based on the structures currently being developed with the *Central German Competence Center on SIM* in Leipzig.

The development of these tools is to be carried out according to an iterative development model in three consecutive sprints, with updated versions of SIM-SSN going live at P3, P4 and P5. The requirements analysis is due for approval at P2.

Initial tasks are

- Requirement analysis (due at P2),
- Architectural design and rapid prototyping,
- Design of the system, development and testing of the tools,
- Release of the development and approval of the release at the milestone (due at P3),
- Roll out the infrastructure at the partners.

The revision phases 2 and 3 have to deal with

- Promotion and support of the partners operating SIM-SSN Nodes,
- Collecting and structuring issues and change requests,
- Further development of the ontology,
- Road mapping of changes in a product plan and a release plan,
- Implementation of the changes and extensions,
- Consolidation as release and approval at the milestone (due at P4 and P5).

The main technical work will be done at ULEI, requirement analysis and ontology design and further development in cooperation with LUT and INSA.

Output: Open Sourced Code at github, Software installations at the different nodes, hand-books for the different service levels, skilled operators to run the infrastructure, documentation of the development process.

Outcome: A smoothly running SIM-SSN to support the various cooperation requirements in the KA with digital tools also beyond the end of the project.

Main developer ULEI (40 TE), support in design and requirements analysis by INSA, LUT (share 15 TE each), two other HEI partners as operating SIM-SSN nodes provided by the development team (share HSO 10 TE, UTC 4 TE).

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	10	30	150		40170
INSA	4	30	30		14874
HSO	3	20	20		10028
UTC	2	20	30		3952
LUT	4	30	30		14874
					83898

WP 3: Development of courses and teaching material (IMP), Lead: HSO

Story 3.1.x: Development of new courses.

There were proposed several stories³ from LUT, HSO, UTC, INSA, ULEI.

³Using this term in the sense of the SCRUM methodology.

We should concentrate on three stories, staff each with 20 TE. My proposal is to take stories proposed by LUT (3.1.1), HSO (3.1.2) and INSA (3.1.3) and another project (5 TE) for building a MOOC (UTC, 3.1.4).

This also relates to epic E2. For each story there is another share from Story 9.2 in WP 9 to support the evaluation.

Output: For each story a piloted and evaluated course ready for dissemination.

Outcome: Enlarging the base of courses that are available in the KA network for student training and can be rolled out at partners. At the same time, this will improve the training opportunities for the target group of students at European level.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	14	50		15	19909
HSO	14	50		15	19909
UTC	8	45		4	4996
LUT	14	50		15	19909
					64723

Story 3.2: Compile a common use case database.

This relates to epic E4. which aim is explained above in more detail.

The target of this story is the creation of a common semantically driven OER Use Case database extending existing collections. One core point here is to develop an appropriate ontology and use semantic technologies to support the operation.

Should be mainly driven by INSA (technical realisation, 30 TE) and supported by TI Minsk (advice 5 TE). For TI Minsk providing material see Story 5.4.

There is another share in Story 5.4 of WP 5 to involve industry.

This should be strongly promoted within Story 7.2 in WP 7.

Output: The database.

Outcome: With this database, the quality of all courses in which use cases play a central role can be improved. This will improve the training quality for the target group of students at European level. A further effect is the strengthening of cooperation between the trainers themselves induced by such a common database. A third effect is the interface with industry, which can have a direct influence on the focus of SIM skills training by providing suitable use cases.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	10	40	80	5	29945
TI Minsk	5	50		2	5024
					34969

WP 3 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	24	90	80	20	49854
HSO	14	50		15	19909
UTC	8	45		4	4996
LUT	14	50		15	19909
TI Minsk	5	50		2	5024
					99692

WP 4: Train the Trainers (IMP), Lead: INSA

Story 4.1: Train the Trainers.

There are 6 three-day trainings (workshops) "train the trainers" each conducted by one of the partners with teaching experience (HSO, INSA, Jantschgi, LUT, UTC, ULEI/Minsk) at their home place, for attendees from the other partners and also for additional partners. The local trainer will be supported and supervised by a trainer from Target Invention. The teaching concept for the workshop is extracted from the real students' training at the location, including usage of learning tools. For each workshop an accompanying material is produced, that is afterwards published as OER at github. The workshops are evaluated as a WP 9 activity, prepared by the lead of WP 9 (using a standardized approach, see over there), see Story 9.3.

These workshops are equally open to project partners and additional partners. Since the KA grant is designed as a subsidiary that does not cover the full cost of a training a workshop fee has to be collected from the participants – equal fee for full and additional partners.

For each trainer team in an A country (INSA, HSO, Jantschgi, LUT) there is a project share of 7 TE (supposed to be distributed as 5 TE for the local coach and 2 TE for the supporter). At ULEI the training will be given by TI Minsk, taking a share of 2 TE to ULEI for local organisation. Hence the trainings at ULEI and UTC get shares [2:2] TE each.

There is a mobility share in the project of 69 TE (see above), that can (due to ERASMUS regulations) be spent on supporting attendees of project partners coming from countries different from the home country of the workshop location. The mobility share has been calculated to support 20 attendees per workshop.

Output: 6 workshops with satisfied attendees, workshop material as OER in the github repository, evaluation report.

Outcome: Better understanding of teaching concepts and approaches at central locations teaching SIM, in particular for industry. Dissemination of best practice experiences in the KA network at large beyond the circle of full partners, as the workshops are open also for additional partners.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	4	2			1858
INSA	3	16			5120
HSO	3	16			5120
UTC	3	16			1726
LUT	3	16			5120
Jantschgi	3	16			5683
TI Minsk	30	100			11980
					36607

Story 4.2: Prepare for students' mobility.

An additional share (4 TE) is devoted to compile best practice documents how to organise a students' (and graduates') exchange within the network using ERASMUS Key Action 1 measures (this requires to have agreements of cooperation between the different HEI). The best practice should be applicable for both the full partners and the additional partners.

Output: A sample students' mobility agreement document, a handbook on students' mobility agreements and several such agreements between full HEI partners as best practice.

Outcome: Boost the students' mobility to obtain SIM skills.

Assigned to ULEI.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	9			5	3809
					3809

WP 4 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	13	2		5	5667
INSA	3	16			5120
HSO	3	16			5120
UTC	3	16			1726
LUT	3	16			5120
Jantschgi	3	16			5683
TI Minsk	30	100			11980
					34733

WP 5: Involving Industry (IMP), Lead: Jantschgi

Contribution from Schaeffler, 13.02.2020

Systematic innovation methodologies are applied in industrial practice to support and drive innovation both in problem understanding and analysis as well as creative development of innovative solutions. As such these methods are crucial for the innovativeness and long-term competitiveness of European companies. The employees and their knowledge are the most significant resource of a company and systematic innovation methodologies can help to make

most effective and efficient use of these resources for innovation, in particular in times, when technology lifecycles become shorter and shorter.

Objective of this work package is to provide an industrial perspective for the other work packages of the knowledge alliance in terms of industry needs and in terms of industry validation. With regards to the networking in WP2, the work package will in particular evaluate and implement possibilities for interaction from an industry point of view, e.g. in the form of student internships or student theses which will help the knowledge transfer from research to practice and vice versa.

Regarding current and future curricula (WP3) the goal is to understand industry requirements towards systematic innovation methodologies and their respective trainings, match the available offers with those needs, identify potential gaps and consider these gaps as inputs for further development of training programs. For this not only the input of human resource management and training departments but also the knowledge and the expertise of the innovation management department, often acting as an internal consultant, can be considered.

Also for WP4 the work package will provide an analysis of industrial needs towards train-the-trainer concepts and to validate the results from an industrial perspective.

5.1 Requirements analysis towards networking, current and future curriculae and train-the-trainer concept from an industry point of view.

5.2 Evaluation of networking, current and future curriculae and train-the-trainer concepts from an industry point of view.

Story 5.1: Development of a comprehensive brokerage structure for student internships and theses

This would have to be technically supported by the SIM-SSN, the industrial partners have to set up a practical structure to keep the necessary database up-to-date.

Output: The web based search infrastructure.

Outcome: Boost the students' mobility to obtain SIM skills.

Story 5.2: Requirements analysis towards networking, current and future curriculae and train-the-trainer concept from an industry point of view.

Output: Requirements document(s).

Outcome: Better understanding the need of industry within the KA network.

Story 5.3: Evaluation of networking, current and future curriculae and train-the-trainer concepts from an industry point of view.

Output: Evaluation document(s).

Outcome: Better understanding the need of industry within the KA network.

Story 5.4: Support the use case database.

This relates to epic E4 and story 3.2. Industry is requested to contribute appropriate useful use cases in a format that has to be specified in the epic E4.

This is a contribution to story 3.2 that is assigned to INSA so INSA will organize the cooperation.

Output: A number of use cases from each industry partner to be defined.

Distribution of shares

The bracket expressions is used to indicate the distribution among the industry partners [P6,P7,P8,P9,P10]. A special arrangement concerns Schaeffler to manage the upper bound share which was formulated as a condition for their participation in the project.

The most tedious tasks are stories 5.1 due to its technical requirements and story 5.4. Hence I propose to give 40% of the overall share to each of these stories, and 10% of the share to each of the remaining stories.

Story 5.1: Distribute the share half for the organisation of the brokerage structure (assigned to Jantschgi, 24 TE) and half for developing the technical support within the SIM-SSN (assigned to ULEI, 24 TE).

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	8	15	90		24003
Jantschgi	8	70		5	23999
					48002

Stories 5.2 and 5.3: 50% for organisation of the report (Jantschgi), 10% to each of the industry partners for contributing to the report, i.e., together $[2, 2, 2, 12 + 5 = 17, 2]$. The following table cumulates the shares for both stories.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
Schaeffler		8			2056
Arxia	3	20			2078
TPlast	3	20			2078
Jantschgi	10	40		10	16980
TI Minsk	3	20			2078
					25270

Story 5.4: Equally distribute the share among the industry partners, i.e., $[4, 6, 6, 20, 10]$. Special share with Schaeffler.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
Schaeffler		15			3855
Arxia	8	60			6128
TPlast	8	60			6128
Jantschgi	12	50		7	20009
TI Minsk	12	100			10072
					46192

WP 5 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	8	15	90		24003
Schaeffler		23			5911
Arxia	11	80			8206
TPlast	11	80			8206
Jantschgi	30	160		22	60988
TI Minsk	15	120			12150
					119464

WP 6: Project Management (MGNT), Lead: ULEI

The share is for the management overhead, having administrative staff to maintain all the reporting and the finance. This requires mainly a per day calculation, giving Leipzig University a triple share for the expenses required for the overall coordination as applicant.

The calculation takes 300 person-days (PD) for Leipzig and 100 PD for each partner, that is multiplied with the amount for administrative staff (B2.4 at p. 140 of the Programme Guide) to get the share for each partner.

Since the KA grant does not cover the full amount of expenses to run the project, in particular the project management, the partners have to provide additional resources also for this work package, which requires different efforts in the different on-site constellations. Schaeffler covers the management expenses completely from such additional resources (HGG: not yet finally agreed).

Addendum 15.02.2020: I recalculated that share using a 1 : 3 mix between B2.1 and B2.4 rates since reporting is also a duty for the managers.

Outcome: Smoothly running project.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	100			200	65000
INSA	30			70	21070
HSO	30			70	21070
UTC	30			70	6470
LUT	30			70	21070
Schaeffler					0
Arxia	30			70	6470
TPlast	30			70	6470
Jantschgi	30			70	23820
TI Minsk	30			70	6470
					177910

WP 7: Dissemination and Transfer (DISS/EXP), Lead: UTC

We understand dissemination as consisting of two parts

- (1) build up an infrastructure with a special interface to get ready for cooperation with the "outer world".
- (2) use that infrastructure to operate real dissemination activities.

Addendum 15.02.2020: I redesigned the stories in larger chunks to get the budget distributed more smoothly and to release the not assigned reserves still present in the last planning.

Story 7.1.: Enlarging the Network.

This is explained above as epic E5 in more detail. Within the project we have first to develop a more detailed expansion strategy (concepts for addressing target groups, preparation of appropriate materials) and then roll it out in several steps. A point to be considered in more detail is in particular

(C) Organize dissemination specific for the target groups. A strong question in the tender is "how do you reach your target groups".

Output: 20 more *additional partners* during project time, 5 of them already in the first year. Use a share of 50 TE⁴ for that lasting activity, distributing it equally between the partners, giving UTC as lead a double (reduced) share for additionally preparing the concepts, i.e., A: 7 TE, B: 2 TE, UTC: 5 TE.

A special arrangement concerns Schaeffler to manage the upper bound share which was formulated as a condition for participation in the project.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	5	20			6820
INSA	5	20			6820
HSO	5	20			6820
UTC	10	40			4580
LUT	5	20			6820
Schaeffler	5	10			4250
Arxia	5	20			2290
TPlast	5	20			2290
Jantschgi	5	20			7545
TI Minsk	5	20			2290
					50525

Story 7.2.: Promoting special results

This is about promoting the results produced within the project in WP 3, 5 and 10. This should be done across the individual special activities and according to a common strategy.

The following kinds of results have to be covered:

- Promotion of existing courses and materials.
- Promotion of the use cases data base (epic E4).

⁴Reduced compared to earlier plans to have Story 7.3 as the story that gets all remaining funding.

- Promotion of newly designed courses (WP 3).
- Best practice of HEI-Industry cooperation.
- Promotion of new and extended Digital Tools (WP 10).

For *Best practice of HEI-Industry cooperation* a template FAQ how to organize the cooperation between HEI and companies or even a more solid report about success stories and failures in that area could be worked out. BUT reported plenty of experience in that direction.

This promotion has to be organised and done by the partners who offer such courses, materials and tools (HSO, INSA, LUT, UTC, TI).

Use a share of 45 TE for that lasting activity, distributing it equally between these partners, i.e., A: 12 TE, B: 4 TE.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	10	35			12355
HSO	10	35			12355
UTC	10	35			4140
LUT	10	35			12355
TI Minsk	10	35			4140
					45345

Story 7.3.: External presentation of our activities and other dissemination activities

Organise external presentation of internal activities of the KA, use various digital channels etc.

”Along the way Knowledge Alliances should deliver publications such as reports, handbooks, guidelines, etc. As a general rule, results should be made available as open educational resources (OER) as well as on relevant professional, sectorial or competent authorities’ platforms” (from the PG)

Maintaining OER: With the github infrastructure we have a natural way to Open Source such material and publications and use that store to redistribute material to different ”relevant professional, sectorial or competent authorities’ platforms”.

(B) ”Additionally, Knowledge Alliances should budget for the presentation of their project and the results at the University-Business Forum and/or other relevant events (up to five during the project duration).”

https://ec.europa.eu/education/events/8th-university-business-forum_en

Output: 20 distribution activities

This has yet to be made a little more specific within the polishing of the proposal.

An important point in this story could play the special role of ULEI – we are ”SIM beginners” but strongly plan to set up a regional SIM infrastructure using all best practice experience and avoid all known pitfalls. This also could be coined into a measurable success story including a ”dissemination report” useful for other European locations that plan similar development activities.

Use a share of 80 TE for that lasting activity, distributing it equally between the partners, giving UTC as lead a double (reduced) share for additionally preparing the concepts.

A special arrangement concerns Schaeffler to manage the upper bound share which was formulated as a condition for participation in the project.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	10	30			11070
INSA	10	30			11070
HSO	10	30			11070
UTC	20	60			7400
LUT	10	30			11070
Schaeffler	5	10			4250
Arxia	10	30			3700
TPlast	10	30			3700
Jantschgi	10	30			12200
TI Minsk	10	30			3700
					79230

WP 7 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	15	50			17890
INSA	25	85			30245
HSO	25	85			30245
UTC	40	135			16120
LUT	25	85			30245
Schaeffler	10	20			8500
Arxia	15	50			5990
TPlast	15	50			5990
Jantschgi	15	50			19745
TI Minsk	25	85			10130
					175100

WP 8: Quality Control (QA), Lead: ULEI

Story 8: Internal Quality Control

This is the organisation of QA of the project itself. Main duties:

- monitor the fulfillment of the different tasks,
- for each of the project meetings prepare a QA report,
- prepare and distribute the other documents for the project meetings,
- conduct the sprint retrospective.

Output: QA reports. Dissemination: Project internal

Budget distribution: ULEI as lead 40% share (18 TE), others 5% share each (i.e., A: 3 TE, B: 1 TE).

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
ULEI	15	20		50	18030
INSA	3	4		6	2978
HSO	3	4		6	2978
UTC	3	4		6	952
LUT	3	4		6	2978
Schaeffler	3	4		6	2978
Arxia	3	4		6	952
TPlast	3	4		6	952
Jantschgi	3	4		6	3349
TI Minsk	3	4		6	952
					37099

WP 9: Evaluation (EV), Lead: HSO

Note that quality assurance aspects play an important role in the call for tender and (since the reviewers in most cases are far from the domain) also *practically* in the reviewing process.

Story 9.1: Develop evaluation templates for epic E2 and E3 activities

Use a share of 10 TE, assigned to HSO.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
HSO	4	30		5	9839
					9839

Output: evaluation templates.

Story 9.2: Do evaluation of the E2 activities

Use a share of 11 TE, equally distributed between the assignees of the different activities. (LUT 3 TE, HSO 3 TE, INSA 3 TE, UTC 2 TE)

Output: evaluation results.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	1	4		10	2934
HSO	1	4		10	2934
UTC	1	4		10	928
LUT	1	4		10	2934
					93672

Story 9.3: Do evaluation of WP 4

Plan (once) and do the evaluations (for 6 workshops).

Output: evaluation results.

Use a share of 10 TE, assigned to HSO.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
HSO	4	30		5	9839
					9839

Story 9.4: Do overall evaluation of the project

Invoke external partners, plan and do the evaluation.

Output: evaluation result.

Use a share of 13 TE, assigned to HSO.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
HSO	4	30		5	9839
					9839

WP 9 Summary.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	1	4		10	2934
HSO	13	94		25	32451
UTC	1	4		10	928
LUT	1	4		10	2934
					39247

WP 10: Digital Tools (IMP), Lead: INSA

Story 10.1.x: Cooperative Use of Digital Tools

There are four partners that strongly develop tools. I propose to set up four cooperation projects as Stories 10.1.x along the lines of epic E3 and distribute the share of the WP equally between the four "shareholders" of the systems as the "senior partners" of the cooperation project (i.e., 10.1.1 INSA 35 TE, 10.1.2 LUT 35 TE each, 10.1.3 UTC 13 TE, 10.1.4 TIM 13 TE). Of course the share should be redistributed with the junior partners if they are found.

Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
INSA	8	20	140		34998
UTC	8	20	140		11848
LUT	8	20	140		34998
TI Minsk	8	20	140		11848
					93672

Overall Summary

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	ULEI	8	50	70	12	31002
WP 2	ULEI	10	30	150		40170
WP 4	ULEI	13	2		5	5667
WP 5	ULEI	8	15	90		24003
WP 6	ULEI	100			200	65000
WP 7	ULEI	15	50			17890
WP 8	ULEI	15	20		50	18030
Summe		169	167	310	267	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	INSA	4	21			6741
WP 2	INSA	4	30	30		14874
WP 3	INSA	24	90	80	20	49854
WP 4	INSA	3	16			5120
WP 6	INSA	30			70	21070
WP 7	INSA	25	85			30245
WP 8	INSA	3	4		6	2978
WP 9	INSA	1	4		10	2934
WP 10	INSA	8	20	140		34998
Summe		102	270	250	106	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	HSO	4	21			6741
WP 2	HSO	3	20	20		10028
WP 3	HSO	14	50		15	19909
WP 4	HSO	3	16			5120
WP 6	HSO	30			70	21070
WP 7	HSO	25	85			30245
WP 8	HSO	3	4		6	2978
WP 9	HSO	13	94		25	32451
Summe		95	290	20	116	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	UTC	4	24			2536
WP 2	UTC	2	20	30		3952
WP 3	UTC	8	45		4	4996
WP 4	UTC	3	16			1726
WP 6	UTC	30			70	6470
WP 7	UTC	40	135			16120
WP 8	UTC	3	4		6	952
WP 9	UTC	1	4		10	928
WP 10	UTC	8	20	140		11848
Summe		99	268	170	90	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	LUT	4	21			6741
WP 2	LUT	4	30	30		14874
WP 3	LUT	14	50		15	19909
WP 4	LUT	3	16			5120
WP 6	LUT	30			70	21070
WP 7	LUT	25	85			30245
WP 8	LUT	3	4		6	2978
WP 9	LUT	1	4		10	2934
WP 10	LUT	8	20	140		34998
Summe		92	230	170	101	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	Schaeffler	2	16			4784
WP 5	Schaeffler		23			5911
WP 7	Schaeffler	10	20			8500
WP 8	Schaeffler	3	4		6	2978
Summe		15	63		6	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	Arxia	5	17			2026
WP 5	Arxia	11	80			8206
WP 6	Arxia	30			70	6470
WP 7	Arxia	15	50			5990
WP 8	Arxia	3	4		6	952
Summe		64	151		76	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	TPlast	5	17			2026
WP 5	TPlast	11	80			8206
WP 6	TPlast	30			70	6470
WP 7	TPlast	15	50			5990
WP 8	TPlast	3	4		6	952
Summe		64	151		76	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	Jantschgi	4	13			5169
WP 4	Jantschgi	3	16			5683
WP 5	Jantschgi	30	160		22	60988
WP 6	Jantschgi	30			70	23820
WP 7	Jantschgi	15	50			19745
WP 8	Jantschgi	3	4		6	3349
Summe		85	243		98	

WP	Partner	B2.1	B2.2	B2.3	B2.4	Sum in Euro
WP 1	TI Minsk	5	17			2026
WP 3	TI Minsk	5	50		2	5024
WP 4	TI Minsk	30	100			11980
WP 5	TI Minsk	15	120			12150
WP 6	TI Minsk	30			70	6470
WP 7	TI Minsk	25	85			10130
WP 8	TI Minsk	3	4		6	952
WP 10	TI Minsk	8	20	140		11848
Summe		121	396	140	78	