



# TIPS

TRANSPORT R&D  
FOR INNOVATION

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## Best practices and role models

ENHANCING THE CAPACITY OF  
EU TRANSPORT PROJECTS TO

TRANSFORM RESEARCH  
RESULTS INTO  
**INNOVATIVE PRODUCTS  
AND SERVICES**



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## Executive Summary

The objective of WP2 *Development of best practice* and innovation methodologies was

- (a) Identification and comparison of exploitation approaches selected by the identified R&D projects to turn their research results into innovative products and services.
- (b) Collecting best practices and designing role models (innovation methodology) for the exploitation and dissemination of R&D results for the different transport modes.
- (c) Acquiring expert support by setting up an Advisory Board with experts from each of the transport modes and working with them, also in the form of Round Tables.

Under task T2.2 *Identification of exploitation approaches* a methodology/approach on how to select the most promising projects (based on their responses in the TIPS online questionnaire carried out under WP1) was designed. Under task T2.3 *Best practices and role models* those exploitation approaches were analysed in order to identify best practice cases and role models.

Initially, the identified exploitation approaches should have been transformed into best practices and role models (innovation methodology) for the exploitation and dissemination of R&D results for the different transport modes. As the project progressed and especially after the 1<sup>st</sup> Round Table with the expert Advisory Board it became evident that the specific nature of each project and also the circumstances and conditions of each transport mode had to be taken into account. Therefore the TIPS consortium together with the Advisory Board decided that there cannot be just one single best practice case per transport mode. In the sense of the TIPS project there is rather the talk of using the identified projects as examples for **good** practices in general independently from the transport mode.

It further became evident, that different project types request a certain distinction in order to properly decide whether these projects are real good practice examples or not. Therefore the following definition was made:

### **Type 1 Good Practice**

= understanding exploitation more like in the sense of making use and deriving **commercial/marketable** benefit of something (marketable products); project managed to create revenues (even if it is just for 1 single result)

### **Type 2 Good Practice**

= understanding exploitation more like in the sense of making use and deriving **general benefits / environmental, communal, social benefits / benefits in terms of safety / standardisation / etc** of something instead of thinking about marketable products

While reading D2.2 this main finding needs to be kept in mind because first the terminology of the deliverable refers to the original terminology from the DoW. Under section 2.3 the context of this main finding (2<sup>nd</sup> Round Table) will be elaborated and the terminology changes respectively.

# 1. Step-by-step identification of exploitation approaches

This step-by-step identification of exploitation approaches comprises of activities prior, during and after the 1<sup>st</sup> Round Table with the Advisory Board experts that has been organised on 24 October 2013 (M13) in Brussels.

The following chart gives an overview of the activities carried out in each phase. Further explanations will be given in the subsequent sections.

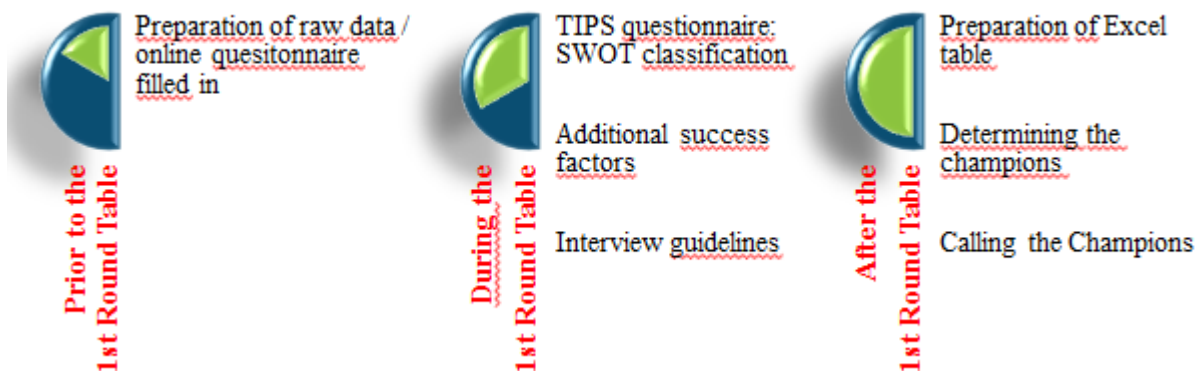


Figure 1: Overview of the step-by-step identification of exploitation approaches

## 1.1 Preparatory work prior to the 1<sup>st</sup> Round Table

SEZ first prepared the raw data that was provided by ICF (TIPS questionnaire under WP1, Task 1.2 *Field study*). This data was downloaded from Survey Monkey as Excel document and used for the analysis of the questionnaires filled in by either project partners or coordinators of finished FP7 transport projects. This had to be done in order to get a matrix of questions (questionnaire per project vs. questions asked):

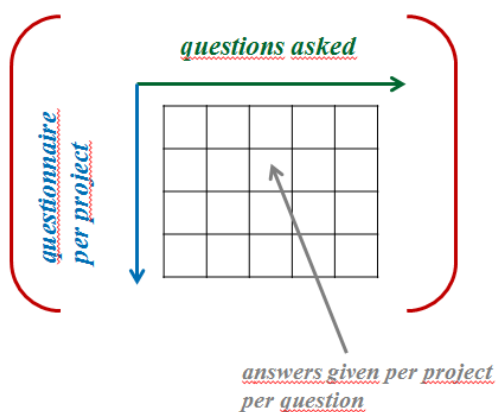


Figure 2: TIPS survey question and answer matrix per project

This matrix was used later on to identify potential best practice cases (further described under section 3 “*Best practices and role models*”). In a next step, each question of the questionnaire needed to be identified as either S, W, O, or T question in accordance with the subsequent definition:

**SWOT definition**

S	STRENGTHS	<i>project internal conditions</i> beneficiary to a successful exploitation of the project results
W	WEAKNESSES	<i>project internal conditions</i> <u>NOT</u> beneficiary to a successful exploitation of the project results
O	OPPORTUNITIES	<i>project external conditions</i> beneficiary to launch a product
T	THREATS	<i>project external conditions</i> <u>NOT</u> beneficiary to launch a product

For a thorough description of the analysis of the questionnaires, please see section 2.

## 1.2 1<sup>st</sup> Round Table with the TIPS Advisory Board

### 1.2.1 Setting the scene

**SWOT definition**

Please see section 2.1.

**Market-oriented exploitation definition**

In this context, *market-oriented exploitation* was defined in accordance with the EC study „How to convert Research into Commercial success Story?“ and therefore means “*any exploitation process of research outputs with a commercial objective, e.g. contribution to gaining/increasing profits and/or economic competitiveness. As a condition, there has to be a traceable link between the research output and the supposed economic effect*”<sup>1</sup>.

**Key impact factor definition**

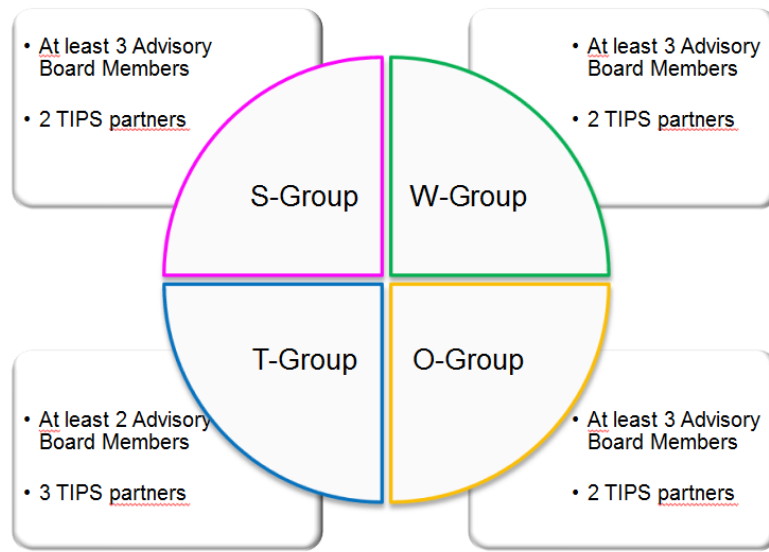
Key impact factors in this context had to be understood as either *key success factors* for market-oriented exploitation or as *key barriers* for market-oriented exploitation.

**SWOT Working Groups**

During the Advisory Board meeting, there were 4 working groups and each group was composed of 2-3 Advisory Board experts as well as 2-3 TIPS partners:

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<sup>1</sup> please see: EC Study „How to convert research into commercial success story“, p. 24  
[http://ec.europa.eu/research/industrial\\_technologies/pdf/how-to-convert-research-into-commercial-story-part1\\_en.pdf](http://ec.europa.eu/research/industrial_technologies/pdf/how-to-convert-research-into-commercial-story-part1_en.pdf)



**Figure 3: SWOT working groups**

The division of Advisory Board experts per SWOT working group was done bearing in mind the transport mode they represent, the kind of organisation they work for and the country they come from. This has been done in order to both ensure a balanced allocation of experts per working group and to obtain more favourable results. The division of TIPS partners per SWOT working group was based on a joint decision established during a TIPS conference (Tuesday, 10th September (10:30 am, CET)).

**Table 1: Advisory Board expert division per working group**

**S-Group**

Daniel Cadet	industry	rail	French
Stratos Papadimitriou	university	mixed	Greek
Claus Seibt	research	rail/road	Germany

**W-Group:**

Jean Francois Boisson	industry	air	French
Eleni Zacharaki	public	mixed	Greek

**O-Group**

Stefano Mainero	industry	road	UK
Peter Wolters	association	intermodal	Belgium

**T-Group**

David Doerr	industry	all	German
Chris Nash	university	rail/road	UK



## 1.2.2 Working phase

### Task 1: Identifying project internal and external conditions for market-oriented exploitation of project results

#### Step 1: TIPS questionnaire classification

##### Task in general:

Each working group had to analyse the plain TIPS questionnaire. This meant classifying ALL questions - more specifically: *all possible answers* that can be given by an interviewee has to be in accordance with either the S, W, O, or T definition of the respective working group. While doing so, each working group needed to bear in mind the different stages of a project, meaning: *before, during or after a project's lifetime*. The task had to be performed insofar as each SWOT working group had to browse through the TIPS questionnaire and identify those questions, whose answers match the SWOT definition of the respective working group. Then the answers of that analysed question needed to be filled in the respective cell in the previously prepared *Template for Step 1*. Said template was provided for each working group (meaning 4 different templates) by SEZ. In order to make sure that everyone knew how to proceed with the template, SEZ also provided the following descriptive notes:

- If at least one answer possibility matched the S, W, O or T definition, at least one *impact factor* had to be deduced and a brief explanation of that impact factor had to be given in *Template for Step 2* (see Step 2).
- If at least one answer possibility matched the S, W, O or T definition, then the relevance of this answer possibility had to be linked to at least one *transport mode* and a brief explanation of that choice needed to be given in *Template for Step 2* (see Step 2).
- If at least one answer possibility matched the S, W, O or T definition, then this answer possibility shall additionally be considered of importance for one (or more) different stages of a project, meaning: *before, during or after a project's lifetime*. The respective stage(s) shall be marked with an "x". Please note: a brief explanation of that choice shall be given in *Template for Step 2* (see Step 2).

##### Task for TIPS partners:

**Table 2: Tasks for TIPS partners during step 1**

	<b>Moderator</b>	<b>Minute taker</b>
<b>S-Group</b>	Ira Vater	Martin Škarka
<b>W-Group</b>	Ulrich Boes	Jessica Ebner
<b>O-Group</b>	Iakovos Delioglani	Lea Kane
<b>T-Group</b>	Ronald Pohoryles & Anne-Cécile de Giacomon	Kludia Tvergyák

→ **Moderator:** the moderator had to always watch the clock and make sure that the whole questionnaire had been analysed at the end of step 1. She/he not only had to participate in the working group but also had to guide the communication in order to guarantee the expected result(s).

→ **Minute taker:** during step 1, the minute taker had to document the results of step 1 in the prepared *Template for Step 1*. This was of particular importance because this table had to be discussed in the rapporteur round at the end of the working phase. The minute taker further transferred all impact factors deduced into the *Template for Step 2* and documented the explanations in *Template for Step 2*.



### Expected Result(s):

Each possible answer (of each question) of the TIPS questionnaire was rated against the S, W, O, T definition. **Those questions, whose answer(s) matched the definitions**, were considered of importance for the analysis of the filled-in questionnaires (provided by ICF). All other questions will not be considered for determining the best practice projects.

For each SWOT matching answer possibility at **least one impact factor** had to be **deduced** and the relevance of each SWOT matching answer possibility had to be **linked with at least one transport mode**. Each SWOT matching answer possibility had to be considered of importance for one (or more) stages of a project, meaning: **before, during or after a project's lifetime**.

### Step 2: Identification of additional key impact factors

#### Task in general:

Each working group together with the experts, identified key impact factors for a successful market-oriented exploitation (meaning key success factors as well as key barriers). Additionally the chosen impact factors were described and considered of importance for one (or more) different stages of a project, meaning: **before, during or after a project's lifetime**. An explanation for this choice had to be given. Additionally the impact factors were considered of importance for at least one transport mode. An explanation for this choice also had to be given.

The result of the 4 working groups was documented in the *Template for Step 2* that was provided for each working group (4 different PowerPoint slides) by SEZ. After the Advisory Board Meeting, the slides were be integrated in the PowerPoint presentation for the TIPS public workshop by SEZ.

#### Task for TIPS partners:

**Table 3: Tasks for TIPS partners during step 2**

	<b>Moderator</b>	<b>Minute taker</b>
<b>S-Group:</b>	Ira Vater	Martin Škarka
<b>W-Group</b>	Ulrich Boes	Jessica Ebner
<b>O-Group</b>	Iakovos Delioglani	Lea Kane
<b>T-Group</b>	Ronald Pohoryles & Anne-Cécile de Giacomoni	Kludia Tvergyák

→ **Moderator:** the moderator had to always watch the clock and make sure that the whole questionnaire had been analysed at the end of step 1. She/he not only had to participate in the working group but also had to guide the communication in order to guarantee the expected result(s).

→ **Minute Taker:** during step 2, the minute taker had to document the results of step 2 in the prepared *Template for Step 2*. This was of particular importance because those slides were presented during the TIPS public workshop in the afternoon of the very same day. Prior to Step 2 the minute taker already transferred all impact factors deduced during Step 1 into *Template for Step 2*.

### Expected Result(s):

At least **5 key impact factors** (5 S, 5W, 5O, 5T → **before, during, after project's lifetime**; → **transport mode**) for a successful market-oriented exploitation per working group that haven't been established during Step 1.

## Task 2: Identification of questions for the interview guidelines

### Task in general:

It was intended that each working group together with the experts, assessed the pre-given questions in the *Template for Task 2* provided by SEZ and further new questions for the interviews to be carried out after the 1st Round Table should have been identified. The overall result of the 4 working groups was supposed to be documented in the *Template for Task 2*. After the Advisory Board Meeting, the results should have been integrated in the *Interview Guidelines* document to be done by SEZ.

Unfortunately there was not enough time left to carry out the task. Nevertheless, the consortium was able to indirectly discuss these issues with the Advisory Board experts during task 1. Therefore the *Interview Guidelines* were adapted in accordance with those discussions after the Advisory Board meeting.

### Final Step: Rapporteur Round + Discussion

### Task in general:

Each rapporteur shortly presented the groups' results (5-10 min), based on the slides produced by the minute-takers during the working groups. After the presentation, all participants discussed the results.

### Rapporteurs:

**Table 4: Rapporteurs per SWOT working group**

Group	Rapporteur
S-Group	Daniel Cadet
W-Group	Eleni Zacharaki
O-Group	Peter Wolters
T-Group	Chris Nash

### Task for TIPS partners:

→ Moderator: Heike Fischer

→ Minute taker: Jessica Ebner

## 1.3 Results 1<sup>st</sup> Round Table – Key impact factors

Together with the Advisory Board, the TIPS questionnaire was classified in accordance with the pre-defined SWOT methodology. Out of these classified questions, 31 key impact factors were deduced. The defined impact factors are a first step towards general recommendations for do's and don'ts regarding a successful exploitation. Said impact factors were discussed together with the Advisory Board and further verified during both Training Academies (Sessions foreseen, e.g. for TIPS Training Academy in Lyon: *Impact factors for exploitation – part 1: Strengths and Weaknesses; Impact factors for exploitation – part 2: Opportunities and Threats*). The following table lists all 31 impact factors, their description, relevance for the project's lifetime and relevance for one transport mode:

	Impact Factor	Description	Relevance for project's lifetime	Relevance for transport mode
<b>STRENGTHS</b>	Previous experience in EU funded projects		At proposal stage, the beginning, during and end of the project	All
	Previous experience in national projects	Research is sometimes carried out at national level prior to the EU level	At proposal stage, the beginning, during and end of the project	All
	Complete innovation life-cycle in a project	Project length should allow for completion of the complete project life-cycle	Important to foresee this at proposal stage	Project length can differ according to transport mode
	Good IPR and confidentiality management	Good management of access rights to project results is a strength	Must be in place at proposal stage	All
	Funding must cover all necessary R&D activities	R&D oriented funding schemes such as STREPS, IPs, ERCs that allow for real research	At proposal stage, the beginning, during and end of the project	All
	Dissemination to relevant industrial stakeholders	Dissemination via industrial magazines, presentations at industrial fairs	At the beginning, during and end of the project	All
	Research must cover the full spectrum of stakeholders	Research should meet the needs of all target users – from industry and from institutions	Mainly during project implementation	All
	Competitiveness	Competitive advantage, developing recommendations for standards	The beginning and during the project	All
	RoI - Return on Investment	Research results in a product or service at the end of the project	At the beginning, during and end of the project	All

	Impact Factor	Description	Relevance for project's lifetime	Relevance for transport mode
	Complete scenario of project outputs	Increases the exploitation potential of the project	At the beginning, during and end of the project	All
	Policy impact	Having an impact on public policy is a potential strength on the projects	At the end of the project	All
	European transport area	Contributing to the harmonisation of national transport policies	At the end of the project	All
	Positive coordination of project activities		During the project	All
	Continued coordination after project end		At the end of the project	All
	Exploitation commitment	Commitment by a group of partners to bring the results to the market	After the project	All
WEAKNESSES	Inefficiency of consortium formation	Structure doesn't fit with objective of project	Beginning, implementation and outputs	all
	Gap between market needs and project objectives and outputs	Usually research products have a demo dimension but they are not able to cope with market and societal needs	End of project	all
	Type of output	It is a weakness if we are at the final stages of a project lifecycle and produce ONLY documentation material	Proposal writing, Beginning, Implementation phase and end of project	all
	Gap between research and policy objectives	No user-oriented or market-oriented proposals	Proposal writing, implementation phase, end	all

	Impact Factor	Description	Relevance for project's lifetime	Relevance for transport mode
	Imbalance between available resources and objectives	It is a weakness if the available resources can not achieve the project results.	Proposal writing, beginning, implementation	all
	Poor definition of background IPR	Wrong IPR framework management	Proposal writing	all
OPPORTUNITIES	Role large industries	Dependence big industries on SME, end users, citizens	Prior to beginning project	All modes & producing ind. & society
	Shared industrial values in R&D	All stakeholders along chain	Get optimal use existing infra, vehicles etc.	All modes & producing ind. & society
	Experience FP4,5 etc. future Horizon 2020	Past focus: systems; now: services; future: sharing (data, infra)	Prior to beginning project;	All modes
	Relation R&D - legislation	R&D evidence to adapt legislation	After R&D project	All modes (harmonisation scattered national legislation)
	Sharing results, openness	Potential new services outside consortium	After R&D project	All modes: Producing ind; citizens
	Horizontal & multi sectorial, not vertical	Most opportunities between modes, systems, last mile etc	After R&D project	All modes & producing industries
THREATS	Public perception	Societal acceptance (e.g. driverless trains)	Mostly at the beginning and at the end	Rail, air, public
	Technology	Competing technologies, sudden changes in technology	Whole lifecycle	All modes

Impact Factor	Description	Relevance for project's lifetime	Relevance for transport mode
Ownership/organizational management		Mostly at the end	Intermodal
Microeconomy	Financing possibilities, tax systems, access to venture capital, fuel prices	Mostly: beginning and after the end*	All modes
Policy framework	Administration/legislation issues, changes in the direction of policy, priorities (e.g.: safety, security), sudden political changes, lack of interoperability, standardization	Beginning and end*	All modes, most importantly with modes with government control

## 2. Best practices and role models

### 2.1 Follow-up after the 1st Round Table

After the Advisory Board Meeting, the questionnaires of all finalised projects have been analysed in accordance with the findings of the 1<sup>st</sup> Round Table. Said analysis comprised of two important tasks, which are explained in the following subsections in more detail.

#### 2.1.1 Task 1: Highlighting

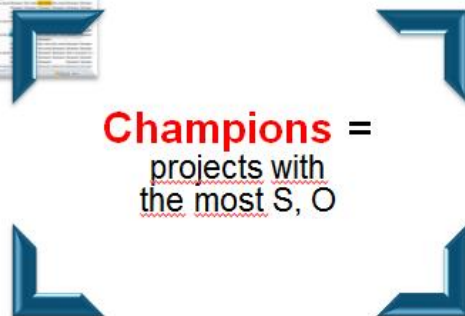
For developing the TIPS questionnaire, partner ICF used the programme SurveyMonkey, which allows for downloading the answers given by each interviewee as Excel table (project per project on a row per row basis). The highlighting has been done row per row (for each project one row) following a specific colour code:

**Table 5: Colour code for highlighting the questionnaire answers**

S	all the answers from the questionnaire that were identified as <b>Strengths</b>
W	all the answers from the questionnaire that were identified as <b>Weaknesses</b>
O	all the answers from the questionnaire that were identified as <b>Opportunities</b>
T	all the answers from the questionnaire that were identified as <b>Threats</b>

#### 2.1.2 Task 2: Determining the champions

By working row per row, links between Strengths and Opportunities as well as Weaknesses and Threats were identified. Finally, the evaluation of the “champions” has been done by counting the number of pink and orange cells.





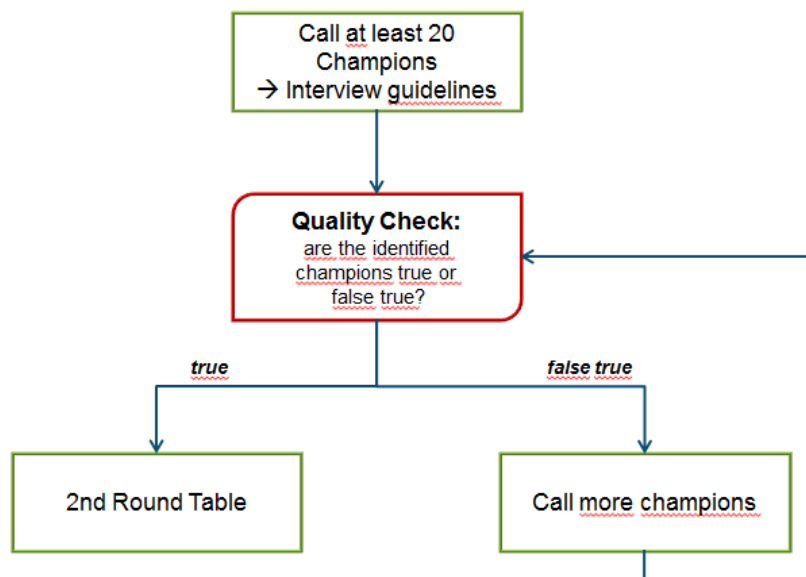
## 2.2 Interviews with potential best practice cases

With this SWOT methodology applied, 32 of 46 finalised projects were identified as potential best practice projects. Said projects were shared among the TIPS partners to collect further information on their exploitation approaches. This has been done by contacting (interviewing) the person who completed the online questionnaire, talking directly the coordinator or partner mainly in charge of exploitation of the respective project. For this, SEZ has provided the consortium with both, *Interview Guidelines for the Identification of Best Practice Cases* and an *Interview Protocol Template*.

**Table 6: Preliminary list of potential best practice cases**

ETNA	ELAN
In-Time	TYROSAFE
MODSafe	ACEM RAIL
CETRRA	ENTIII
ASSET	Re-road
CONCERTOUR	INTERACTION
SaferBraIn	SAFERAIL
InfraGuidER	VISION
PICAV	DREAM
EIRAC II	HORIZON
DIRECT-MAT	DaCoTA
DELTA	Mefisto
2020 Interface	SafeTRIP
NICHES+	EURECOMP
Transbonus	LAYSA
Star-net Transport	Market-up

After the interview with a representative of the respective project, a first quality check needed to be done verifying whether the identified champion is a true or false true champion.



**Figure 4: Quality control**

After the 1<sup>st</sup> Round Table and especially after having carried out the interviews it became evident that the specific nature of each project had to be taken into account. It further became evident, that different project

types request a certain distinction in order to properly decide whether the projects are real best practice cases or not. Therefore the following definition was made:

**Type 1 BP**

= understanding exploitation more like in the sense of making use and deriving **commercial/marketable** benefit of something (marketable products); project managed to create revenues (even if it is just for 1 single result)

**Type 2 BP**

= understanding exploitation more like in the sense of making use and deriving **general benefits / environmental, communal, social benefits / benefits in terms of safety / standardisation / etc** of something instead of thinking about marketable products

After the first evaluation round, only **10** out of the pre-identified 32 project qualified as real best practice cases per either Type 1 or Type 2 definition.

Since the overall goal of WP2 were 20 identified best practice cases, the consortium decided to call further finalised projects that have filled in the questionnaire. The following table presents the overall type estimation of all projects interviewed under WP2:

**Table 7: Best Practices**

	<b>Type 1 BP</b>	<b>Type 2 BP</b>
NICHES+		<b>X</b>
SAFERAIL	<b>X</b>	<b>X</b>
VISION		<b>X</b>
DaCoTA	<b>X</b>	<b>X</b>
ETNA		<b>X</b>
In-Time	<b>X</b>	
MODSafe		<b>X</b>
DIRECT-MAT		<b>X</b>
DELTA		<b>X</b>
2020 Interface		<b>X</b>
ELAN		<b>X</b>
Re-road		<b>X</b>
INTERACTION		<b>X</b>
LAYSA		<b>X</b>

Prior to the 2<sup>nd</sup> Round Table, the TIPS consortium jointly identified 14 Type 1 and/or Type 2 best practice cases.

For an overview of all interviews carried out with these projects, please see Annex 3.

### 2.3 2nd Round Table

On 17 June 2014 (M21), the TIPS consortium held a second half day Advisory Board meeting in Brussels. The aim was to present the results of the interviews the TIPS partners carried out on the post-project exploitation practices of the projects that were considered as ‘potential good practices’. Before the meeting, SEZ developed individual working packages for each Advisory Board expert comprising of the Interview Protocols for each project they have been assigned to as well as a 2 page summary of the respective projects. To exploit the expertise of each AB member and limit their work load, each one was ‘assigned’ to review a certain number of projects, while each project was reviewed 3 AB members.

As the project progressed and especially after the 1<sup>st</sup> Round Table with the expert Advisory Board it became evident that the specific nature of each project and also the circumstances and conditions of each transport mode had to be taken into account as well. Therefore the TIPS consortium together with the Advisory Board first decided that there cannot be just one single best practice case per transport mode. In the sense of the TIPS project there is rather the talk of using the identified projects as *examples for good practices* in general independently from the transport mode.

During the 2<sup>nd</sup> Round Table, the definition of what is a “good practice for successful exploitation” was revised during the discussion among the AB members. As a result, the ‘good practices’ can be categorised in two “Types”:

**Type 1 Good Practice**

= understanding exploitation more like in the sense of making use and deriving **commercial/marketable** benefit of something (marketable products); project managed to create revenues (even if it is just for 1 single result)

**Type 2 Good Practice**

= understanding exploitation more like in the sense of making use and deriving **general benefits / environmental, communal, social benefits / benefits in terms of safety / standardisation / etc** of something instead of thinking about marketable products

### 2.4 Role Model development

During the 2<sup>nd</sup> Round Table the TIPS consortium together with the Advisory Board experts also discussed what is meant by the term *Role Model* and how role models for each good practice type could look like. In accordance with this, role models per each type of best practice case were defined as:

**Table 8: Characteristics of Role Models for Type 1 & Type 2**

<i>Definition: ROLE MODEL</i>	
<ul style="list-style-type: none"> <li>- <i>Role models aim to be something like a „cook book“ for a project which is successful in terms of exploitation</i></li> <li>- <i>Role models could act as guidelines for future projects in any transport mode</i></li> </ul>	
<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 1</b>	<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 2</b>
<ul style="list-style-type: none"> <li>- Existence of clear RDI and exploitation objectives which are understood and accepted by all partners in the consortium</li> <li>- Broad consortium (ideally the project</li> </ul>	<ul style="list-style-type: none"> <li>- Broad consortium</li> <li>- Consortium composition:                             <ul style="list-style-type: none"> <li>o Final user: relevant public authority responsible for specific area needs</li> </ul> </li> </ul>

<i>Definition: ROLE MODEL</i>	
<ul style="list-style-type: none"> <li>- <i>Role models aim to be something like a „cook book“ for a project which is successful in terms of exploitation</i></li> <li>- <i>Role models could act as guidelines for future projects in any transport mode</i></li> </ul>	
<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 1</b>	<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 2</b>
<p>consortium should contain actors from all relevant segments of the value chain – or at least include some mechanism(s) to ensure that the interests/needs of critical actors are adequately considered in the development of marketable products/services)</p> <ul style="list-style-type: none"> <li>- Consortium composition:               <ul style="list-style-type: none"> <li>o Relevant commercial/industrial partners</li> <li>o Relevant end-users</li> </ul> </li> <li>- Observance of specific requirements of users</li> <li>- Adequate consideration of certification and standardisation issues. Where relevant, seek the support of national and European standardisation organisations.</li> <li>- Consideration of public procurement as a lever to support market penetration of products/services to be developed</li> <li>- Clarity with regard to IPR issues – already prior to the beginning of the project</li> <li>-</li> <li>- Seek funding as early as possible</li> <li>- Seek knowledge and learn from horizontal and other cross-sectorial / mode activities</li> <li>- Engage in projects on issues that seem significant / that provide value for money</li> <li>- Give maximum publicity/dissemination of your results beyond the academic world (trade magazines, fairs, etc)</li> <li>- Addressing specific requirements of users</li> <li>- No Go: Development of products which require potential customers to supply human resources they currently do not have high investments needed by potential customers as prerequisite to use it</li> <li>- Clear, realistic vision with respect to the time line for project results reaching the market</li> <li>- Exploitation of cooperation between industry and research institutions</li> <li>- Identify the end-users first</li> <li>- Development of a compelling, persuasive</li> </ul>	<p>to be integrated from the start of the project and to be keen to apply the results</p> <ul style="list-style-type: none"> <li>- Obtainment of political commitment from relevant decision-makers for uptake and implementation of results/developments</li> <li>- Industry-Academia cooperation useful for HR development</li> <li>- Addressing of a specific requirement of a society</li> <li>- Establishment and continual further development of a network of relevant actors as a vehicle for wider dissemination of results and best practice</li> <li>- Industry-Academia cooperation may be useful</li> <li>- Addressing a specific need/ requirement of a society</li> <li>- Ensure that there is not the “not invented by me” problem</li> <li>- maximise dissemination and knowledge transfer of research results, seeking to create an open network of research results</li> <li>- clearly identify the beneficiaries (government, NGOs, authorities, etc.)</li> <li>- large projects are required time to time to investigate a deep change (ie move from traditional testing to virtual one’s) or to test new concepts changing end user’s behaviour (new logistic) or to prepare standardisation and to understand impacts on each type of actors: large aircrafts, engine maker, industrialists, etc.</li> <li>- Involvement of an expert team competent to assess public impacts Clear identification of parameters of expected benefits and how they will be achieved</li> <li>- Conditions to be fulfilled in order to reach the expected benefits</li> <li>- Long-term, short-term impacts</li> <li>- a "critical mass" of high level scientists and technology developers</li> </ul>

<i>Definition: ROLE MODEL</i>	
<ul style="list-style-type: none"> <li>- <i>Role models aim to be something like a „cook book“ for a project which is successful in terms of exploitation</i></li> <li>- <i>Role models could act as guidelines for future projects in any transport mode</i></li> </ul>	
<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 1</b>	<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 2</b>
<p>demonstrator</p> <ul style="list-style-type: none"> <li>- Incorporate end users who see developing the product as something they definitely want to do and have resources to do it, rather than ones who are just interested in knowing what is going on</li> <li>- Include researchers who are keen to see their ideas exploited</li> <li>- Size of consortia could be small 2 to 6M€ which is the trend for H2020</li> <li>- If issues are well defined, customers' requirements are missing (the man who select technologies to buy)</li> <li>- The same for marketable benefits</li> <li>- Project has to draw steps and decisions to launch a product on the market, mainly internal steps in large groups and how their awareness about the project will be made</li> <li>- Because in industry any new technology cannot be implemented on production before at least 3 or 4 years, a great attention of use of KET will be taken</li> <li>- identify new knowledge and new know how potentially created by partners</li> <li>- Make positioning of technologies in the technology trend road map and draw the windows of opportunities for this technology</li> <li>- a market plan is needed at an early stage</li> <li>- Clarify the process of project results reaching the market</li> <li>- Expected market success in compition with similar products</li> <li>- Market potential – regional/European/global</li> <li>- a "critical mass" of high level scientists and technology developers</li> <li>- Industry-Academia cooperation useful for HR development</li> <li>- capable of integrating connected fields and to associate complementary skills</li> <li>- Marketing specialists should be in the consortium</li> </ul>	<ul style="list-style-type: none"> <li>- Get involved in certification and standardisation issues</li> <li>- capable of integrating connected fields and to associate complementary skills</li> <li>- Public procurement needs to be addressed</li> <li>- Transport policy specialists should be in the consortium</li> <li>- Addressing needs of a society: sustainability, pollution, public health, safety, security, equity, environment protection, climate change, global warming.</li> <li>- Citizens and associations must be involved and some should be in the consortium</li> <li>- Public authorities should be in the consortium</li> <li>- Multidisciplinary consortium and interdisciplinary research is a must</li> <li>- The consortium should be able to structuring and facilitating engagements between academics, industrialists, public authorities and communities;</li> <li>- Technology transfer is a main issue</li> </ul>

<i>Definition: <b>ROLE MODEL</b></i>	
<ul style="list-style-type: none"> <li>- <i>Role models aim to be something like a „cook book“ for a project which is successful in terms of exploitation</i></li> <li>- <i>Role models could act as guidelines for future projects in any transport mode</i></li> </ul>	
<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 1</b>	<b>CHARACTERISTIC OF ROLE MODEL FOR TYPE 2</b>
<ul style="list-style-type: none"> <li>- The consortium should have a high levels of industrial connectivity</li> <li>- Some partners should have a reasonable stability of funding and operating conditions over time</li> <li>- sources of finance should be not dependent over time on public research funding</li> <li>- a well-identified industrial partners in the consortium having their own research agenda converging with the objective of the project</li> <li>- Final users must be involved</li> <li>-</li> </ul>	

One could advise that the description of the role models might become an integrated part of each individual project proposal in order to confirm a clear idea of the project and about the implementation of its results and to define indicators for the evaluation of the project results in its final stage.

Further, the definitions do not determine two completely separated sets, the intersection of set Type 1 and set Type 2 is not an empty set. There are elements that belong to both sets. Some products can have marketable benefit and social benefit.

## Annex 1 – Interview Guidelines

### Questions

#### **General information on the product(s)**

Could you please describe the product(s) that has/have been developed during your project?

#### **IPR management prior/during the project**

Was an exploitation strategy described in the Description of Work?

How was IPR managed prior to the project start? How is IPR regulated in the Consortium Agreement?

Was there an IPR manager?

How was this topic addressed throughout the project's lifetime?

#### **Availability on the market**

Is/are the respective product(s) already available on the market?

How did you manage to transfer your research result(s) to the market?

Did you demonstrate it to potential customers?

Did you already know the potential customers before starting the technology development?

etc.

Who was responsible?

#### **Use of the product(s)**

How is/are the product(s) used – e.g. only internally (consortium), also externally?

Who is mainly using the product(s)?

How is/are the product(s) used?

Who was responsible for managing the use of the product(s) after the project's end?

#### **Success factors**

In your opinion, please name at least 3 factors that have led to successful exploitation of your project's research result(s).



## Annex 2 – Agenda for the 2<sup>nd</sup> Round Table

### TIPS Advisory Board Meeting

17June 2014 – Brussels, Belgium

HunOR- Hungarian Liaison Office for Research and Innovation, 11 Bld. Bischoffsheim

Tuesday, 17June 2014	
09:30 – 09:35	<b>Welcome and introductory remarks</b> TIPS coordinator SEZ, TIPS partner SOPHIA
09:35 – 09:50	<b>Presentation: “TIPS Methodology for good practice identification of successful R&amp;D exploitation and role model development”</b> TIPS coordinator SEZ
09:50 – 11:30	<b>Individual Exercise</b> (incl. coffee break): Advisory Board experts will <ul style="list-style-type: none"> <li>➤ get familiar with the good practice projects identified by TIPS</li> <li>➤ develop role models for each transport mode</li> </ul>
11:30 – 13:30	<b>Rapporteur Round incl. Discussion</b> Short presentations of the developed role models per transport mode (5-10 minutes) of the working groups results + subsequent discussion
<i>END OF THE MEETING AND NETWORKING LUNCH</i>	