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OSAIS – Observatory on State Aid Impact

Methodology Paper for Component 3:

Exchange of experiences dedicated to the identification
and analysis of Good Practices

C3 Coordinator: Regional Government of Lower Austria
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1 Overview over European State Aid Regulations

The following pages give an overview over the European state aid regulations. Even though only the current regulations are listed in the table below at the moment the OSAIS partner will also take into consideration prior and comparable forerunner regulations as the OSAIS analysis covers the time frame from calendar year 2005 to calendar year 2009, in total five years.

More information about the European Regulations is available under:

http://ec.europa.eu/competition/state_aid/legislation/compilation/index_en.html

Topic	State Aid Regulations
Investment	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section I), Regional aid ; Art. 13, Regional investment and employment aid Art. 14; Aid for newly created Small Enterprises
	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section II) SME investment and employment aid ; Art. 15; SME investment and employment aid;
R&D&I	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section VII) Aid for research & development & innovation ; Art 30 to 37 Art 31: Aid for research and development projects Art 32: Aid for feasibility studies Art 33: Aid for industrial property rights cost for SME Art 35: Aid to young innovative enterprises Art 36: Aid for advisory services and innovation support services Art 37: Aid for the loan of high qualified personnel
	Community framework for state aid for R&D&I ; C 323 v. 30.12.2006
SME; Consultancy & Participation in fairs	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section V) Aid for consultancy in favour of SME and SME participation in fairs ; Art 26: Aid for consultancy in favour of SME Art 27: Aid for SME participation in fairs

Environment	<p>General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section IV) Aid for environmental protection; Art. 17 to 25</p> <p>Art 18: .investment ... to go beyond Community standards for environmental protection</p> <p>Art 19: ... for new transport vehicles beyond Community standards</p> <p>Art 20: Aid for early adaption to future Community standards for SME</p> <p>Art 21: Environmental investment aid for energy saving measures</p> <p>Art 22: Environmental investment aid for high efficiency cogeneration</p> <p>Art 23: Environmental investment aid for promotion of energy from renewable energy sources</p> <p>Art 24: Aid for environmental studies</p> <p>Art 25: Aid in form of reduction of environmental taxes</p> <hr/> <p>Community guidelines on state aid for environmental protection; C 82 v. 1.4.2008</p>
Temporary crises	<p>Temporary Community framework for State aid measures to support access to finance in the current financial and economic crisis (2009/C 83/01)</p> <ul style="list-style-type: none"> • Compatible limited amount of aid (€ 500.000) • Aid in form of guarantees • Aid in form of subsidised interest rate • Aid for production of green products • Other measures like temporary derogation of risk capital guidelines / simplification of the requirements to use the "escape clause" contained in the export credit communication <hr/> <p>Community guidelines on state aid for rescuing and restructuring firms in difficulty; C 156; prolongation under C 174 v. 28.7.2009</p>
others	De Minimis L 379/5 v. 28.12.2006, Article 2
Entrepreneurship female	<p>General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section III) Aid for female entrepreneurship;</p> <p>Art 16, Aid for small enterprises newly created by female entrepreneurs</p>
Risk Capital	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II,

	Section VI) Aid in form of risk capital; Art 28, 29
	Community guidelines on state aid to promote risk capital investments for SME; C 194 v. 1.10.2004
Training	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section VIII) Training aid; Art 38, 39
	Communication from Commission to individual notification; C 188 v. 11.8.2009
Employment	General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section IX) Aid for disadvantaged and disabled workers; Art: 40 to 42
	Communication from Commission for individual notification; C 188 v. 11.8.2009

Regulation number doesn't vary from one country to another. It's a different way to reference to the Regulation:

- a number regards the number and the date of approval of the Regulation
- a number regards the number and the date of the publication of the Regulation in the Official Journal of the European Union (OJEU)

E.g.: General Block Exemption Regulation:

- COMMISSION REGULATION (EC) No 800/2008 of 6 August 2008 (or simply Regulation EC N 800/2008) – number of the Regulation and the date of approval
- OJEU L 214/3 of 9 August 2008 –> number of the publication of the Regulation in the Official Journal of the European Union

European Commission usually uses the number of the Regulation and the date of approval to indicate a Regulation.

Furthermore the following regulations can be relevant for the above mentioned topics:

- Specific Aid Instruments:
http://ec.europa.eu/competition/state_aid/legislation/instruments.html
- Sector Specific Rules:
http://ec.europa.eu/competition/state_aid/legislation/instruments.html
- Regional Aid:
http://ec.europa.eu/competition/state_aid/regional_aid/regional_aid.html

1.1 Relevant topics for OSAIS

The OSAIS partners agreed to put the focus on the following topics (bold marked in the above overview)

- Investment in commerce and industry ,
- Investment in tourism,
- Research & Development & Innovation (R&D&I),
- SME (Cooperation and Internationalisation, Consultancy & Participation in fairs),
- Temporary crises (as topic of the respective thematic seminar).

2 Overview over regional State Aid Schemes and the interlinked Regulations

Each partner provides an overview over all Regional State Aid Schemes for companies and the underlying European State Aid Regulations for the OSAIS topics

- Investment in commerce and industry,
- Investment in tourism,
- Research & Development & Innovation (R&D&I),
- SME (Cooperation and Internationalisation, Consultancy & Participation in fairs),
- Temporary Crises,
- Further schemes only if the partner is including additional state aid schemes.

The partners agreed to include in this overview all state aid schemes which are “under regional control”, which can include local, regional, national and European sources/schemes. “Under regional control” means, that regional authorities/ regional institutions are deciding or at least have considerable influence on the concept development for the respective state aid scheme and the approval/refusal of the project proposals.

All overviews and analyses are carried out preferably on regional NUTS 2 level, in case of Saxony it is NUTS 1 level. Otherwise the partner has to indicate that data gathering is not possible on NUTS 1 / NUTS 2 level and which level will be applied.

The overview requires the listing of the current regulations, but not necessarily the listing of comparable forerunner regulations. Nevertheless partners are free to add also relevant prior and forerunner regulations for the considered time frame from calendar year 2005 to calendar year 2009.

In single partner regions (like Lisbon and Tagus Valley) or in case of single state aid schemes (like in Murcia) an unambiguous allocation to one OSAIS is not always possible. In these cases additional explanation is required.

In this overview each partner is also indicating which regional state aids within the selected topics are considered as relevant for the in-depth analyses and experience exchange within OSAIS based on individual project data.

2.1 Partners’ cases

The partners’ cases are listed in the intranet.



2.1.10 Case of Lower Austria – as example

State Aid Topic Region	Investment	R&D&I	SME consultancy & participation in fairs	Temporary crisis
<p>Niederösterreich Lower Austria Department WST3 Current status – comparable prior and forerunner regulations like SME regulation are not listed</p>	<p>1. General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section II) SME investment and employment aid; Art. 15; SME investment and employment aid; Art.13: Regional Investment</p> <p>2. De Minimis L 379/5 v. 28.12.2006, Article 2 (for several bonus within Investment and for guarantees)</p>	<p>1. Community framework for state aid for R&D&I; C 323 v. 30.12.2006 (all similar to Art 31, 32, 33, 35 and 37 of block exemption)</p> <p>2. De Minimis L 379/5 v. 28.12.2006, Article 2 (for Innovation Assistant)</p> <p>3. General block exemption Regulation L 214/3 v. 9.8.2008; Chapter II, Section VII, Art 35: Aid to young innovative enterprises</p>	<p>General block exemption Regulation L 214/3 v. 9.8.2008 (Chapter II, Section V) Aid for consultancy in favour of SME and SME participation in fairs; Art 26 for Internationalisation and Collaboration projects Art 27 for internationalisation</p>	<p>Temporary Community framework for State aid measures to support access to finance in the current financial and economic crisis (2009/C 83/01)</p> <ul style="list-style-type: none"> • Compatible limited amount of aid (€ 500.000)
Type of funding schemes	Loan, Equity, Guarantees, Grants	Grants	Grants	Grants
Selected state aid schemes for in-depth analyses (to be confirmed)	Investitionsförderung für gewerbliche Unternehmen; Investitionsförderung für Tourismusunternehmen	Innovationsförderung/Förderung von Forschung, Entwicklung und Innovation	Internationalisierung	
further state aid schemes	Bürgschaften/NÖKBG – Rückbürgschaften; NÖ Beteiligungsmodell		Kooperationen/ Förderung von Kooperationen	

3 Aggregated overview for state aid topics per region

Every partner is gathering for the aggregated overview for the 4 selected state aid topics per region the following figures of all state aid schemes which are “under regional control”:

- Region
- State Aid Topic
- Name of state aid scheme
- Linked European State Aid Regulation
- number of cases (projects, not firms)
- number of supported micro – small – medium – large firms
- state aid based on granted eligible project costs at project start [EUR] not state aid based on the actual paid costs after project end – only the amount of granted eligible project costs for the SMEs as beneficiaries (direct state aid schemes) are considered, in case of indirect state aid schemes the intermediary fees have to be excluded;
example: the intermediary “InnoFacilitator” is receiving 575.000 Euro for year 2008 for the state aid scheme “OSAIS-TOP”, thereof 530.000 Euro are granted project costs and the rest of 45.000 Euro is for the intermediary itself for managing the “OSAIS-TOP” finding scheme. In this case the amount of 530.000 Euro is relevant for the aggregated overview, but not the 45.000 Euro covering the expenses and staff costs of the intermediary. The granted eligible project costs at project start [EUR] are
 - divided in to the different type of state aids (grant – loan – interest subsidy – guarantee – accelerated depreciation)
 - divided into the different sources of funding (local – regional – national – Europe)
- total granted eligible project costs at project start [EUR]
- total grant equivalent of granted eligible costs at project start, gross grant equivalent GGE [EUR]
- total actual paid project costs at project end [EUR]
- total grant equivalent at project end, gross grant equivalent GGE [EUR]
- expected new created jobs [FTE]
- expected maintained jobs [FTE]

The data are aggregated on annual basis for the calendar years 2005 to 2009 for the own NUTS2 region (in case of Bautzen/Saxony: NUTS 1 region). For the considered time frame the OSAIS analysis is not only dealing with the current regional state aid programs, but also with former state aid programs. That means

that the partners aggregate the relevant data from all those state aid programs which were active in the considered time 2005 to 2009.

The numbers are split according to the individual state aid schemes per topic.

In single partner regions (like Lisbon and Tagus Valley) or in case of single state aid schemes (like in Murcia) an unambiguous allocation of a state aid schemes to one OSAIS topic is not always possible. In these cases additional explanation is required.

Because the data availability, quantity and quality of the state aid schemes differ from OSAIS region to OSAIS region significantly, it will not be possible to run intensive statistical analyses on the aggregated overviews. The aggregated overview can be used as information for budget (and in some cases impact) information for state aid schemes under regional control Nevertheless the aggregated overviews provide relevant information about the applied state aid schemes in the OSAIS regions, in particular in combination with the impact analyses and the regional context setting.

Every partner has to do its best to deliver as many data as possible in a sufficient quality for the pre-defined structure (see next chapter). For any restrictions regarding data availability or doubts about data quality the respective partner should write down some note as annex to the aggregated overview.

In order to have as exact data as possible and to allow comparison among partners double counting has to be avoided. E.g. if within a project national grants and loans are provided this project must NOT to be counted as 2 cases. Therefore it is required to consider all combinations of types and sources of state aids separately.

The data of approved projects are allocated for the year of approval. Projects do not have to be finished, they can still run.

State Aids for SMEs and large companies are taking into consideration (in contrary to in-depth analysis where only state aids for SMEs are considered).

The aggregated overview includes state aid schemes which are directly or indirectly (via intermediaries/ banks) provided for the SMEs as beneficiaries. **For an indirectly provided state aid scheme only the relevant budget for the companies as beneficiaries should be considered, not the additional fees for managing intermediary.** Otherwise there should be a respective comment on this issue.

Not part of this aggregated overview are

- temporary crisis schemes (are tackled in the respective thematic seminar and documented in the WORD descriptions),
- pre-seed schemes with individual persons as beneficiary (but pre-seed schemes can be optional part of the in-depth analyses of individual state aid schemes),

- other state aid schemes for companies (but other schemes can be optional part of the in-depth analyses of individual state aid schemes),
- state aids for environment, training, agriculture,
- state aids for “enterprises in difficulties” ,
- indirect state aid scheme for business infrastructure,
- guarantees, which have been drawn: in case of making use of a guarantee it can look like in the statistics as if the type of the state aid is turning from a guarantee into a grant if the amount is shifted from “guarantee” to “grant”. Therefore such drawn guarantees should be eliminated in the aggregated overview or only the original guarantee amount should be considered,
- guarantees with market conform interest rate are not considered as state aid, because grant equivalent = 0

3.1 Structure for overview

Every partner provides an EXCEL file with 5 sheets - for each year (2005 to 2009) in one table.

All partners will use the same template for the aggregated overview as depicted on the right side (see also EXCEL File “OSAIS aggregated overview structure 20101020”):

No amendments of the pre-defined structure are allowed in order to ensure the same data structure for all aggregated overviews.

3.2 Data gathering

The partners (except Heraklion) have also carried a first round on data gathering with very different results in quantity and quality of the data.

Lower Austria as C3 coordinators suggests to wait with the final data gathering until mid of 2011 in order to ensure a higher availability of the required data for the aggregated overview. Agreement by P1 Veneto. P11 Champagne-Ardenne is waiting for further instructions by C3 lead partner. As the

[fill in your region]	[for year 2005]		[for year 2006]		[for year 2007]		[for year 2008]		[for year 2009]			
	number of individual state aid schemes	number of supported micro firms	number of supported medium firms	number of supported large firms	number of individual state aid schemes	number of supported micro firms	number of supported medium firms	number of supported large firms	number of individual state aid schemes	number of supported micro firms	number of supported medium firms	number of supported large firms
Government Economy												
TOTAL Government Economy												
Regional												
TOTAL Regional												
SAIE												
TOTAL SAIE												
TOTAL												

finalisation of the interview guide and starting the data gathering for the descriptive analyses is of higher priority in order to stay within the work program. Lower Austria will provide the open tasks for the aggregated overviews before the Trencin meeting.

3.3 Merge of data and analyses

Lower Austria as C3 coordinator will try to merge the databases of aggregated overviews of all partners in one EXCEL table and provide for further analyses some PIVOT applications (tables) in the same EXCEL file. These PIVOT applications allow every partner simple inter-regional comparison – as far as the gathered data allow such comparisons. Lower Austria will provide a short guideline for the EXCEL file how to apply PIVOT functionality. Lower Austria recommends to use the MS EXCEL 2007 version as this version is providing additional PIVOT-functionality compared to the MS EXCEL 2003 version. But as for single partners MS EXCEL 2003 is the standard version, the PIVOT application will be applicable under MS EXCEL 2003 and MS EXCEL 2007.

The merged database will be available for download in the OSAIS intranet.

Every partner runs its own analyses and inter-regional comparison with the provided PIVOT applications, which can also be adapted by every partner according to the own requirements.

Based on the own analyses and inter-regional comparison every partner is preparing an own analyses report with questions for other partners concerning the comparison with partners' state aid schemes.

In the merged EXCEL file additional indicators will be added for analyses:

- Total grant equivalent / granted eligible costs at project start [%]
(automatically calculated)
- grant equivalent per maintained /created job at project start [EUR]
(automatically calculated)

4 Regional profile for context setting for every partner region

Beside the aggregated overview over the relevant state aid schemes under regional control the partners decide to draw for every partner region a regional profile consisting of some relevant macro economic data as well as some (qualitative) indicators about state aid schemes relevant issues in order to get a better understanding of the region and the background of the regional state aid policy for firms.

The set of indicators was agreed on in March 2011 during the Trencin meeting. This set was slightly amended by Lower Austria when adding the explanations for the single indicators and agreed on by the OSAIS partners.

All indicators refer to the NUTS2 level!

The definition of the single indicators is as follows:

0.0 SIZE AND DENSITY

0.1 Size (Population)

Definition: Total Population

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0:= min of OSAIS partners
5:= OSAIS mean
10:= max of OSAIS partners

0.2 Size(geographical area)

Definition: geographical area in km²

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

0.3 Density of population

Definition: Population/km²

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners

5= OSAIS mean
10= max of OSAIS partners

1.0 POLICY CONTEXT

1.1 GDP per capita

Definition: GDP per capita is an important indicator to measure the economic performance of a region. According to the definition that innovation means bringing new technology in markets and thus making turnover with new products, the GDP per capita is an indirect indicator for innovation success.

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.2 Share of the region in national GDP

Definition: Regional GDP/National GDP

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.3 Growth rate of GDP per capita

Definition: Real growth rate of regional GDP at market prices at NUTS level 2 – percentage change on previous year (2003/2004)

Source: Eurostat (2004 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.4 Health of the labour market: 100% – unemployment rate (%)

Definition: Inverse of the Unemployment rate

Unemployed people = persons aged 15-74 who were without work during the reference week, were currently available for work and were either

actively seeking work in the past four weeks or had already found a job to start within the next three months

Source: EUROSTAT (2005 or younger data) – unemployment rate at Nuts level 3 (%)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.5 Total regional R&D Expenditure (% GDP)

Definition: Total intramural R&D expenditure (GERD) % of GDP

Source: EUROSTAT (2003 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.6 Public regional R&D Expenditure (GERD – BERD) (% GDP)

Definition: The indicator is the ratio of public R&D spending on GDP. The former is defined as the difference between total R&D expenditures (GERD) and business enterprise expenditures (BERD). It thus includes higher education expenditure in R&D (HERD), government expenditure in R&D (GERD) and private non-profit expenditure in R&D (PNRD).

In addition to the production of basic and applied knowledge in universities and higher-education institutions, publicly funded research offers several other outputs of direct importance to private innovation: trained research staff and new instrumentation and prototypes.

Source: Eurostat Public R&D expenditure = $(GERD/GDP)-(BERD/GDP)$
(2003 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.7 EPO patents per million population

Definition: Number of patents applied for at the European Patent Office (EPO), by year of filing. The national distribution of the patent applications is assigned according to the address of the inventor.

The capacity of firms to develop new products will determine their competitive advantage. One indicator of the rate of new product innovation is the number of patents. This indicator measures the number of patent applications at the European Patent Office.

Source: Eurostat (2003 or younger data)

Measurement: Quantitative indicator

Metric:

- 0= min of OSAIS partners
- 5= OSAIS mean
- 10= max of OSAIS partners

1.8 Population with tertiary education per 100 population aged 25-64 (% of the population aged 25 to 64)

Definition: The qualification of the population is an important driving force of economic growth and innovation. Thus the proportion of the population aged 25 to 64 who have successfully completed university or similar (tertiary-level) education is an important indicator. Tertiary education is not limited to science and technical fields because the adoption of innovation in many areas, particularly in the service sectors, depends in a wide range of skills. Furthermore, it includes the entire working age of the population, because future economic growth could require drawing on the non-active fraction of the population. International comparisons of educational levels however are notoriously difficult due to large discrepancies in the educational systems, access, and the level of attainment that is required to receive a tertiary degree. Therefore, differences among countries should be interpreted cautiously.

Source: Eurostat (2006 or younger)

Measurement: Quantitative indicator

Metric:

- 0= min of OSAIS partners
- 5= OSAIS mean
- 10= max of OSAIS partners

1.9 Human resources in Sciences and Technology (% of active population)

Definition: Number of persons who have successfully completed education at the third level in a S&T field of study and who are employed in a S&T occupation

A rapidly changing economic environment and a growing emphasis on the knowledge based economy have seen mounting interest in the role and measurement of skills. Meeting the demands of the new economy is a fundamental policy issue and has a strong bearing on the social, environmental and economic well-being of the population. Data on Human Resources in Science and Technology (HRST) can improve our understanding of both the demand for, and supply of, science and technology personnel – an important facet of the new economy.

Source: Eurostat (2006 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.10 Participation in life-long learning (% of 25-64 years old population)

Definition: Lifelong learning can take place in a variety of environments, both inside and outside formal education and training systems. Lifelong learning implies investing in people and knowledge; promoting the acquisition of basic skills, including digital literacy and broadening opportunities for innovative, more flexible forms of learning. The aim is to provide people of all ages with equal and open access to high-quality learning opportunities, and to a variety of learning experiences

Life-long learning refers to persons aged 25 to 64 who stated that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer to the question 'participation to education and training'. Both the numerator and the denominator come from the EU Labour Force Survey. The information collected relates to all education or training whether or not relevant to the respondent's current or possible future job.

Source: Eurostat (2009)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

1.11 Brain-drain or brain-gain situation (attractiveness for talent)

Definition: A brain drain or human capital flight is an emigration of trained and talented individuals ("human capital") to other nations or jurisdictions, due in our context to lack of opportunity, low attractiveness of the regional markets or other reasons. We can also speak of outflow of so called "Knowledge workers" to others regions or countries. Brain drain can occur either when individuals who study abroad and complete their education do not return to their home country, or when individuals educated in their home country emigrate for higher wages or better opportunities. The second form is arguably worse, because it drains more resources from the home country. Its counterpart is brain gain in the areas to which talent migrates (high attractiveness of the region for talents)

Source: Regional sources – estimation

Measurement: Qualitative indicator

Metric:

- 0= Brain drain is a big issue and a threat in the trajectory of the regional economic development
- 5= No big gap – balanced situation
- 10= The region attracts knowledge workers and it is in a brain-gain situation.

2.0 REGIONAL ECONOMIC/INNOVATION POLICY AND GOVERNANCE

2.1 Degree of autonomy of the Regional Government in RDTI policy (institutional and administrative autonomy – degree of empowerment of regional authorities from central government)

Definition: Overall autonomy in RDTI (Research & Development, Technology and Innovation) matters taking into consideration political, financial and legislative issues

Source: Regional analysis

Measurement: Qualitative indicator

Metric: 0= no autonomy

Category C: centralised countries, either with regions playing a very limited role in RDTI matters, or with no regions at all. Many Member States, and all the New Member States, fall into this category. Apart from the obvious cases of very small countries where no sub-national division of the territory exists in these matters, this group also includes larger countries, where regions are defined but still do play a minor role in policy development, because they lack constitutional, legislative, and budgetary powers in RDTI matters. In a number

of cases, regions have been defined for the purpose of handling Structural Funds, but the possibilities for their regions to define and implement their own policies is not (yet) present. Another set of countries under Category C includes regions which are rather active in implementing national development programmes with a regional development focus, and including innovation- (and sometimes research-) related measures, such as, e.g. in Ireland. It is to be expected that in a number of countries, regions will progressively acquire more powers in these areas, which might induce some shifts towards Category B.

5= some autonomy

Category B: centralised countries, where a dominant role is played by the national level, with however a significant possibility for regions to develop own initiatives in RDTI policy, in partnership with the national state. France presents a typical case of this category: French Regions have the possibility to develop their own policy orientations with regard to RDTI, but the RDTI landscape, funding sources, institutions, are mostly determined at national level, so that actions need to be developed in partnership with the State. Such Regions have co-funding possibilities, which allow them to orient their actions according to regional priorities. In countries of this category, there is usually a large difference between regions, in terms of their involvement in RDTI policy design and implementation, with some regions limiting themselves merely to implementing national instruments, while others developing specific programmes and institutions, and policy lines. Finland and Sweden represent two cases where the responsibility of regions in RDTI matters is growing significantly, starting from a situation where until recently, these matters were still under exclusive responsibility of the national government. The Netherlands is following an opposite trend, with recentralisation moves occur after a period of larger initiative left to the Provinces.

10= full autonomy

Category A: decentralised countries, including regions with legislative and executive autonomy, able to design and implement RDTI policies on their own. The federal states of Austria, Belgium and Germany belong to this category, as their regions have constitutional powers allowing them to define their own policies. Belgium provides an extreme case where RDTI policies at regional and community level are run in complete independency from the federal state, which also possesses some autonomous competences in the science field. In Austria and Germany, most of the policies are implemented jointly between federal and regional level. The autonomous regions of Spain and Italy enjoy different types of rights: some have been granted a larger degree of autonomy than others; the "historical autonomous communities" in Spain, as well as

autonomous provinces in Italy have more autonomy than the other regions in their countries.

2.2 Total amount of regional budget for state aid schemes per capita (according to OSAIS definition: state aid schemes under regional control in the relevant OSAIS topics)

Definition: The total amount of public money spent by the regional government for regional economic/innovation support according to the definition agreed upon in OSAIS is limited to State Aid schemes "under regional control". The regional budget for state aid schemes is defined as the latest available annual budget under regional responsibility, including funds received from national and EU budgets (e.g. structural funds). The regional budget for state aid schemes is limited to public budget; private receipts are not to be considered. The regional budget for state aid schemes is given in absolute amount. It must correspond to the aggregated overview.

Source: aggregated overview, gathered by OSAIS partners

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS means
10= max of OSAIS partners

2.3 Share of budget for state aid schemes under regional authority's control in relation to regional GDP

Definition: see 2.2

Source: aggregated overview / Eurostat

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

2.4 Existence of holistic regional economic/innovation strategy (vision, turning into action, adoption and further development)

Definition: In close connection to or as a result of the regional autonomy and the political decision process a holistic regional economic/innovation strategy – including vision, turning into action, adoption and further development – is necessary for a target oriented economic/innovation policy. This strategy must take the current situation of the needs of the regional firms and the existing competencies into consideration (transparency of regional know-how and competencies (economic/innovation potential), transparency of firms' needs in economic/innovation support). This strategy ideally is documented in a specific strategy policy paper

(stipulating objectives, instruments, intermediary, type of intermediaries and their mission, type of infrastructure and activities)

- Source: Expert assessments, preferably of several persons
- Measurement: Qualitative indicator
- Metric: 0= no regional economic/innovation strategy exists at all, no regional policy paper(s)
- 5= a regional economic/innovation strategy exists, some of the pillars are implemented with the necessary backing. Some policy papers are partially related to the regional economic/ innovation infrastructure but as such do not stand for a comprehensive action plan or policy paper.
- 10=existence of a regional economic/innovation strategy with political backing, based on the consensus building of the actors of the regional steering committee. Exact defined objectives and milestones, demonstrating the actual progress of the defined measures for every corner pillar. One or several specific strategic policy documents precisely frame the regional economic/innovation support in the Region; specifying medium and long terms objectives, instruments, intermediaries' mission, activities, as well as planning and financing methods (money allocated).

2.5 Coordination of state aid schemes on regional and with national level

- Definition: In order to use public money for the state aid schemes on regional and national in the most effective and efficient way, a strong coordination of the state aid schemes on regional and national level as well as a strong collaboration of the responsible authorities on both levels is required on terms of concept development, impact monitoring and day-to-day management. Comprehensive exchange of information among all state aid schemes managing authorities is required to avoid windfall gains by the companies.
- Source: Expert assessments, preferably of several persons
- Measurement: Qualitative indicator
- Metric: 0= no governance system at all and no coordination among the managing authorities of state aid schemes neither on regional nor with national level
- 5= some responsible authorities meet regularly but no formal coordinating and collaboration of all responsible organisation on regional and national level
- 10= very well structured governance system for the coordination of the state aid schemes under regional control is established; a common database is used by the regional authorities which ensures full transparency over all state aid schemes and applicants/beneficiaries. The Joint concept development for state aid schemes on regional and national level ensures complementarities of state aid schemes instead of overlapping among them and thus wasting public money. There a clear regulations and full transparency with the benefit that a company cannot get funding two times for the same proposal (e.g. by submitting on regional and national level).
- One "steering" committee / management body/ coordinating body is empowered and legitimated to supervise and coordinate the state aid

schemes for enterprises on regional level and to ensure the exchange with the national / European level. This “entity” can also take the shape of regular meetings of all actors (e.g. every four months) with open discussions if it has the political backing and the power to have decisions implemented.

2.6 Strength of monitoring and evaluation efforts for state aid schemes under regional control

Definition:	Monitoring is necessary in order to assess the impact of the state aid schemes on the regional economy and for further adjustments of the current economic/innovation policy and the adjustment of single state aid schemes. The monitoring activities have to be dedicated to responsible, professional institutions and persons, the monitoring methodology has to be defined clearly and has to be traceable for all involved persons.
Source:	Regional sources, own estimation
Measurement:	Qualitative indicator
Metric:	0= no monitoring activities 5= some monitoring activities, use of some reporting and assessment tools, with clear responsibilities 10= clearly defined and highly professional monitoring and assessment system (outputs and impact of funding schemes, firms' needs...). Indicator set, data collection and proceeding methods (reports, survey, questionnaires, ICT tools...) are used by dedicated body(s). This body (or bodies) collects, codifies and transfers this knowledge to policy-makers. Follow up of the results: data are used in the policy governance to adjust the system.

3.0 SUPPLY SIDE

3.1 Completeness of state aid schemes available in the region

Definition:	The bundle of the state aid schemes under regional control in conjunction with other available state aid schemes (from national and/or European level) covers the needs of the regional enterprises regarding support in economic/innovation activities. <i>Nota bene: we are <u>not</u> dealing here with the firms' knowledge and awareness of the regional state aid schemes (transparency of offered state aid schemes)</i>
Source:	Regional sources
Measurement:	Qualitative indicator
Metric:	0= lots of gaps exist in the coverage of the companies needs' of support in economic/innovation activities support in various support

services. Some important types of state aid schemes are missing or very scarce (e.g. venture capital)

5= some gaps exist

10= the full range of state aid schemes is provided and is covering the firms' needs.

3.2 Networking of providers of state aid schemes

Definition: Networking among the regional providers of state aid schemes is essential to ensure efficiency of the funding. Some cooperation and communication tools may have been developed and joint actions regarding state aid schemes promoted and financed.

Source: Expert assessment

Measurement: Qualitative indicator

Metric: 0= competition instead of networking among the providers of state aid schemes, no collaboration culture at all

5= networking among providers, but no common tools and projects

10= strong networking and collaboration among providers; high collaboration culture; providers developed joint concepts for state aid schemes to optimise funding support for SMEs

3.3 Transparency of provided state aid schemes for regional companies

Definition: A high transparency of the offered regional state aid schemes increases the likelihood that the "right companies" (= target group of the state aid scheme) are applying for funding.

Source: Expert assessment, survey about transparency of offered state aid schemes

Measurement: Qualitative – quantitative indicator

Metric: 0= no transparency

5= the main state aid schemes are known by the companies

10= it is no problem for the interested entrepreneur, to find the right state aid schemes

3.4 Impact of provided state aid scheme on beneficiaries (effectiveness)

Definition: The impact of the offered state aid schemes is defined by the quantitative and qualitative indicators of the OSAIS methodology. The overall scoring for the state aid schemes (e.g. according to ranking or

macroeconomic effects) and the regions as providers will be developed when running the impact analyses.

Source: results of OSAIS descriptive analysis and PIVOT tables

Measurement: quantitative indicators

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.0 DEMAND SIDE

4.1 Business Expenditure on R&D (BERD) (% GDP)

Definition: This indicator measures the R&D expenditure (from all sources of funding) of the business sector (manufacturing and services) as a percentage of GDP.

The indicator captures the formal creation of new knowledge within firms. It is particularly important in the science-based sectors (pharmaceuticals, chemicals and some areas of electronics) where most new knowledge is created in or near R&D laboratories.

Source: EUROSTAT (2003 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.2 Share of employment in medium-high and high tech manufacturing (% of total employment)

Definition: Number of employed persons in the medium-high and high-tech manufacturing sectors. These include chemicals (NACE24), machinery (NACE29), office equipment (NACE30), electrical equipment (NACE31), telecommunications and related equipment (NACE32), precision instruments (NACE33), automobiles (NACE34) and aerospace and other transport (NACE35).

Total workforce includes all manufacturing and service sectors. The share of employment in medium-high and high technology manufacturing sectors is an indicator of the manufacturing economy that is based on continual innovation through creative, inventive activity. The use of total employment gives a better indicator than using the share of manufacturing employment

alone, since the latter will be affected by the hollowing out of manufacturing in some countries.

Source: Eurostat (2006 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.3 Share of employment in high-tech services (% of total work force)

Definition: Number of employed persons in the high-tech services sectors. These include post and telecommunications (NACE64), information technology including software development (NACE72) and R&D services (NACE73). Total workforce includes all manufacturing and service sectors. The high technology services both provide services directly to consumers, such as Telecommunications, and provide inputs to the innovative activities of other firms in all sectors of the economy. The latter can increase productivity throughout the economy and support the diffusion of a range of innovations, in particular those based on ICT.

Source: Eurostat (2006 or younger data)

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.4 Quality of companies' innovation culture and attitude towards risk

Definition: "Innovation culture" includes notably the following elements:

- Firms (and society as such) openness towards risks and entrepreneurship, which includes "behaviour" and "leadership management" : tolerance to failure, freedom for and stimulation of initiative-taking, fostering of employees' empowerment and self-learning, idea generating promotion, team oriented leadership, ...
- Willingness to collaborate with external partners (confidentiality issues), including foreign partners,
- Attention for innovation and R&D opportunities
- Willingness to think over organisation and decision-making process to stimulate idea generation and innovation project management...

This indicator can also be backed up with reference to figures like: share of small companies introducing improved product, new product, new processes, share of SMEs innovating in collaboration.

Source: Regional sources

Measurement: Qualitative indicator

Metric: 0= weak innovation culture – lots of barriers exist in the society and within the traditional business sphere – few innovative SMEs
5= some sectors are concerned but low participation of SMEs or some main sectors in this culture
10= innovation culture is strong and firms' practices are evolving in many sectors, innovative SMES are developing in all main sectors of the region.

Suggestion Lower Austria: in order to make this indicator more "tangible" the two following indicators could be used:

- Innovative SMEs collaborating with others as a percentage of all SMEs (source: Eurostat CIS)
- SMEs introducing product or process innovations as a percentage of all SMEs (source: Eurostat CIS)

4.5 Regional density of enterprises (number / km²)

Definition: Number of regional enterprises per square kilometre

Source: Eurostat

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.6 Enterprise birth rate

Definition: enterprise birth rates: newly born employer enterprises as a proportion of all active enterprises in the NUTS 2 region.

Enterprise birth: the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. Equally, statistics on enterprise births do not include entries resulting only from a change of activity. If a dormant unit is reactivated within two years, this event is not considered a birth.

Source: Eurostat

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners
5= OSAIS mean
10= max of OSAIS partners

4.7 Enterprise death rate

Definition: Enterprise deaths as a proportion of all active enterprises in the NUTS 2 region.

Enterprise death: the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. Deaths do not include exits resulting only from a change of activity. An enterprise is included in the count of deaths only if it is not reactivated within two years. As such, data on enterprise deaths is generally available at a later date than information on enterprise births.

Source: Eurostat

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners

5= OSAIS mean

10= max of OSAIS partners

4.7 Enterprise survival rate

Definition: Survival rate of enterprises two years after their establishment.

Source: Eurostat

Measurement: Quantitative indicator

Metric: 0= min of OSAIS partners

5= OSAIS mean

10= max of OSAIS partners

5 In-depth impact analysis of individual project data/results – descriptive analysis

In addition to the gathering of aggregated data with analysis and interregional comparisons (see chapter 2) the partner agreed on the impact analysis of individual project data and related results. This in-depth impact analysis is split into a descriptive and an inductive analysis. Only SMEs are considered in the in-depth analysis.

5.1 State aid scheme selection

The partners will provide the data of individual projects according to the indicator list agreed by all partners during the meeting in Bautzen in September 2009 (see current version of EXCEL file "OSAIS descriptive indicators") for the in-depth analysis. There are compulsory indicators for which the data have to be provided by the partners and optional indicators for which the data should be provided for more specific analyses.

Based on this indicator list Lower Austria will provide an EXCEL template for data gathering by end of year 2009, which will be used by all partners.

Every partner is responsible for the quantity and quality of the gathered data.

Every partner will try to provide a sufficient number of data sets (depends on the approach, see below) for 3 to 5 concrete state aid schemes which are under regional control and are belonging to one of the 4 functional topics with SMEs as beneficiaries. Optional and in addition to these compulsory state aid schemes every partner can involve on demand further state aid schemes like temporary crisis measures or pre-seed scheme.

Due to the high number of selected indicators it is highly recommended

1. to use existing information (from data bases, documents) and
2. to complete these data through interviews with firms to gather/complete the required information.

5.2 Analysis sample of projects per selected state aid scheme

The sample for each selected each state aid scheme is no representative sample of the overall regional SME population, but should be a representative sample of the beneficiaries of the respective state aid scheme, and have to fulfil the following requirements:

- Time frame: The start of the projects for in-depth analysis is within the defined time frame calendar years 2005 to 2009. No analyses of single calendar years will be done. Therefore it would be better to focus on already finished projects, because in these cases the results after project end (and even better: after 2 years after project end) can be used for the impact analysis instead of using the expected results. If only expected results are considered, then the projects should be uniformly distributed over the 5 years if possible;

- In no case the most successful projects of each selected state aid scheme should be taken for analyses in order to get meaningful analysis results;
- All beneficiaries of the selected projects of one state aid scheme are different and independent;
- Size of companies: micro – small – medium enterprises, no large companies; sample according to distribution of all beneficiaries of the respective state aid scheme
- Mix of sectors for every sample (representative sample according to NACE Code Rev. 1.1, minimum section (first character A...Q)):
avoid specific state aid campaigns for single sectors;
avoid sectors where state aids are dominating in single countries (e.g. shipbuilding sector);
sample according to distribution of all beneficiaries of the respective state aid scheme
- Geographical distribution – sample should reflect geographical distribution all beneficiaries over the region
- Age of the companies: the company is already established, no further restrictions
 - A partner can involve a pre-seed state aid as additional scheme
- Minimum number of data sets per state aid

For the descriptive analysis each sample should consist of minimum 30 values for each compulsory indicator → minimum of 30 projects / selected state aid scheme each with complete data set. If there are missing values for compulsory indicators the number of projects should be increased; if a partner is not able to gather data of minimum 30 complete sets, a lower number of data sets is also applicable for the descriptive analysis.

The same data can be used for both methodologies of descriptive – inductive methodology (under the condition of the different number of values for descriptive – inductive methodology)

5.3 When to measure the results of the projects? The effective date(s)

To analyse the results of the state aid schemes for the most relevant quantitative indicators (turnover, jobs, R&D share, R&D staff, export) the indicator list (see EXCEL file) has three data fields per indicator:

- Expected
- Project impact at project end
- Impact after two years after project end

For every data set all available data have to be filled in. E.g. if the project was finished 6 months before the interview, the data for expected impact and impact at project end have to be filled in.

For a project which is not finished, only the expected impact is filled in.

5.4 List of relevant indicators for in-depth impact analyses

Please see current version of EXCEL file "OSAI descriptive indicators". The list consists of

- compulsory indicators
- Additional optional indicators for all partners
- Further indicators with at least one "no" from one of the partners

All partners (except Heraklion) have agreed on this list of indicators in September 2010. Heraklion as missing partner has to accept the compulsory indicators and further optional indicators.

The indicators for the descriptive and inductive analysis are the same.

5.5 Data gathering

According to the update OSAIS project schedule data gathering will be carried out from January 2011 until end of 2011. All partners have to adhere to this deadline as the C3 coordinator requires the complete data for the joint analysis. Any delay of an individual partner means delay of the whole project or additional effort for the C3 coordinator.

For the data gathering Lower Austria developed with partners' support an English standardised interview guideline which was then translated into their native language by every partner.

5.6 Merge of partners' databases and descriptive analysis

5.6.1 PIVOT Application for analysis by the partners

Lower Austria as C3 coordinator will merge the 10 EXCEL files from the partners in one EXCEL table and provide for further analyses some PIVOT applications (tables) in the same EXCEL file. This includes also an overview over the average values of all involved state aid schemes for every impact indicator, some project and structural company data.

These PIVOT applications allow every partner all kinds of regional & inter-regional comparison of the involved state aid schemes in figures and with diagrams. Lower Austria will provide a short guideline for the EXCEL file how to apply PIVOT functionality.

For the descriptive analyses 30 values for each compulsory indicator are usually sufficient to get reasonable findings. A smaller number of data sets or missing values in single data set reduce reliability of results. But as not all partners can

guarantee 30 complete data sets for each selected state aid scheme the PIVOT application tool can be applied for a smaller number than 30 values.

Lower Austria will provide for each selected state aid scheme and based on the provided gathered data the number of data sets per state aid scheme.

The merged database is available for download in the OSAIS intranet.

Suggestions for using the PIVOT applications:

1. Filter the regions/topics/company categories/single state aid schemes / others you want to compare
 - E.g. if you want to compare the SAS for Veneto and Lower Austria select in the line for 4 Partner region P01 Veneto and P10 Lower Austria
 - If you want to compare the SAS related to Investment in Commerce and Industry set filter "41+42 a Investment in commerce and industry = 1"
 - If you compare your SAS with the TOP Rankings for a concrete indicator
2. Comparisons of values:
 - Define the indicators which you want to compare for the filter, if the respective indicator is so far not part of pivot table you create your own pivot table
 - Go through the existing pivot tables and identify substantial differences of the values
3. Reason behind values: find out what could be the root causes for the differences by using
 - Description of the respective state aid schemes
 - Case studies
 - Regional context setting relevant indicators, e.g. point 2.5, 2.6, 3.1, 3.2. etc.

5.6.2 Analysis by the partners

Every partner runs its own analysis and inter-regional comparison with the provided PIVOT applications, which can also be adapted by every partner according to the own requirements.

The way of inter-regional comparison is

- between state aid schemes, linked to the same European State Aid Regulation,
- between state aid schemes of the same topic

Every partner has to carry out the benchmarking for at least 3 own state aid schemes. The interregional benchmarking per own state aid scheme can be done with one or several state aid schemes of one or several OSAIS partners.

Elaborated documents like state aid scheme descriptions, aggregated overview, regional context setting, PIVOT application etc should be used for this analysis.

The analysis results with identified differences and possible root causes are documented in a WORD document – a WORD template is provided by Lower Austria as C3 coordinator. The results document the individual strengths and improvement potentials with suggested improvement measures for the partner's state aid scheme.

The results will be presented and discussed at the Study Visits.

Additional Staff Exchanges organised by the partners themselves on bilateral or trilateral basis are additional opportunities to exchange and verify the own findings as well as to complete the documentation.

Based on the own analysis and inter-regional comparison every partner is preparing an own analysis report with questions for other partners concerning the comparison with partners' state aid schemes.

5.6.3 TOP 5 Ranking Lists:

TOP 5 Ranking lists will be generated for the Quantitative impact indicators in relation to the grant equivalent: turnover, jobs, R&D share, R&D staff, Export for the time stamps Expected – Project impact at project end – Impact after two years after project end.

The selection criteria are:

- size of companies (all – micro – small – medium) (4)
- SA topic: 6 as agreed on (6)
- Age of company (all, <2, 2<5, 5<10, >= 10 years) (5)

No combination of selection criteria. Thus in total approx. 15 combinations X 15 impact indicators = 225 TOP Lists

Eligibility for single ranking requires a Minimum of 10 values of the SA required for chosen selection.

The listed information will comprise.

- Rank
- SA name
- Region
- SA topic

- regulation article
- average impact value
- average project costs
- average grant equivalent
- impact per 1.000 Euro grant equivalent
- number of values
- confidence interval

The TOP 5 Ranking Lists will also be generated for the qualitative indicators for the 6 SA topics (approx. 60 TOP 5 Lists).

5.6.4 Regression analysis

Lower Austria will run additional regression analysis about the expected impact of a state aid scheme on a company for the impact indicators as long the data quantity and quality allows reliable results (see chapter 11.1 Calculation of expected impact of state aid scheme on single companies).

6 Inductive analysis

6.1 Standard inductive analysis

Beside the descriptive analysis Lower Austria as C3 coordinator offers to every partner to run for max. 3 state aid schemes per partner an additional inductive analysis: for the 3 impact indicators turnover, new/maintained jobs and export rate the most explaining indicators (usually 3 to 10) for characterisation of the state aid schemes will be identified. The result for every state aid scheme is documented on approx. 2 pages/state aid scheme. For this analysis the values of the 3 effective dates (expected, at project end, two years after project) will be merged into one target variable.

The inductive analysis is based on the same data sets as the descriptive analysis, but has stronger requirements:

To get meaningful results, 70 values for every compulsory indicator are required (that means at least 70 data sets without missing values). If there are missing values for compulsory indicators the number of projects = data sets has to be increased. State aid schemes with less than these 70 values per compulsory indicators cannot be analysed. Every partner is responsible for its own data quantity and quality.

Optional indicators can only be considered if they have at least 70 values like the compulsory indicators.

For the inductive analyses it might be applicable that the data sets of two selected state aid schemes can be merged in order to get the required number of 70 complete data sets, if these state aid schemes are very similar, but under different state aid regulations. E.g. this will be the Lower Austrian case for state aid scheme "Investitionsförderung für gewerbliche Unternehmen" under European State Aid regulations Art. 13, Regional investment and employment aid and Art. 15; SME investment and employment aid. Therefore Lower Austria will gather approx. 40 complete data sets for each article for the descriptive analysis. Both will then be merged to approx. 80 data sets for state aid scheme "Investitionsförderung für gewerbliche Unternehmen" for descriptive analysis.

The final selection of state aid schemes is pending on the progress in data gathering. So far Lower Austria expressed its interest to run the inductive analysis, some other partners will check the possibilities at a later stage.

6.2 Optional inductive analysis

In addition to the standard inductive analysis Lower Austria can run additional inductive analyses on request of single OSAIS partners like

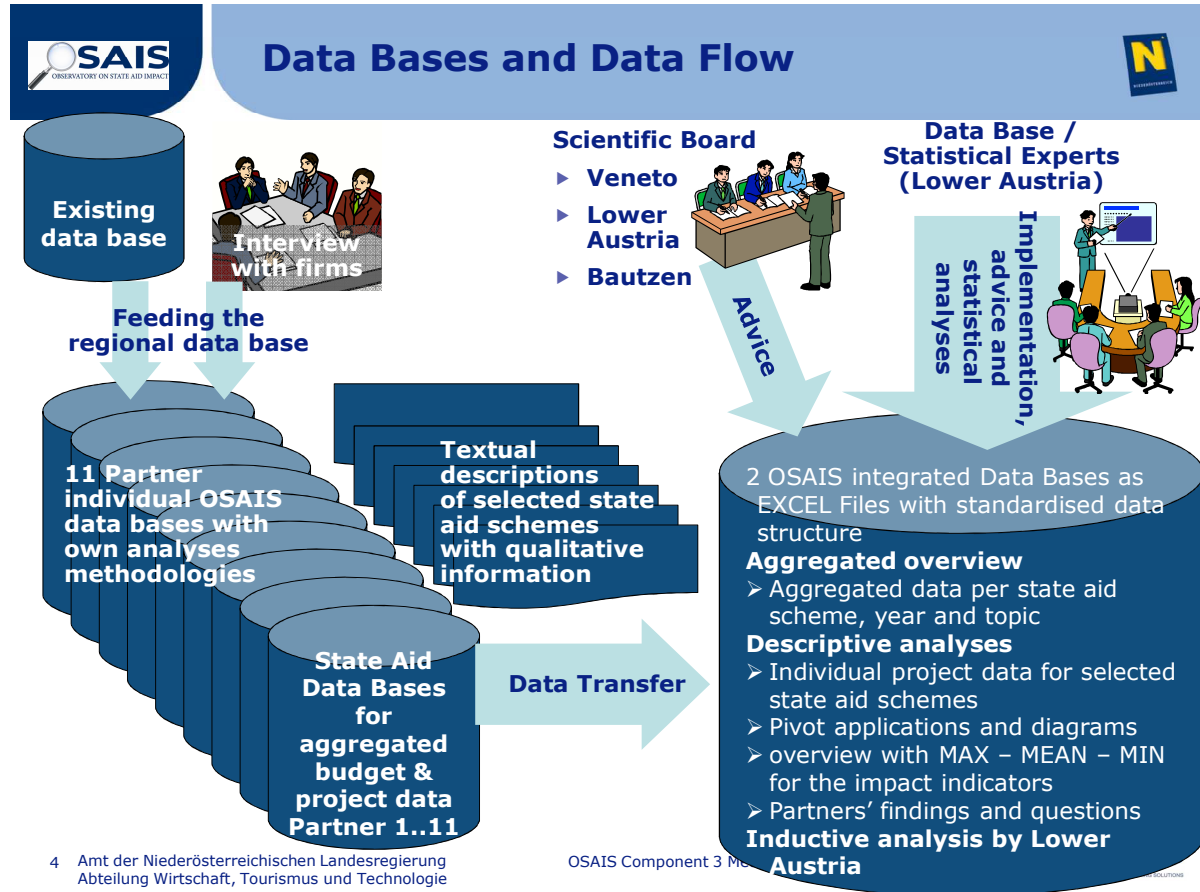
- identify links between the qualitative impact indicators and the quantitative indicators
- identify the most important indicators for the impact indicators R&D staff and R&D share

- comparative analysis of own state aid schemes with selected partners' state aid schemes
- does a "best sequence of application of different state aid schemes" exist depending on the life cycle/characterisation of beneficiaries?
- Other analyses on request of a OSAIS partner

The costs for these additional, optional analyses have to be covered by the individual OSAIS partner (or a group of OSAIS partners).

7 Databases and Data Flow

The following diagram gives an overview over the Databases and the Data Flow:



8 Regional Case Studies

The purposes of the case studies are:

- Promotion of funding scheme → publication as part of the policy recommendations
- Demonstration of success factors
- Combine case studies with study visits

The selection of case studies is following these rules:

- 3 case studies by every partner for 3 different SAS
- If possible select the beneficiaries among these company categories, where the SAS as high ranks (but not necessarily)
- Show links with TOP Ranking for the respective funding scheme

For a minimum of 3 state aid schemes which are selected for the impact analyses every partner will identify one individual project (one project per selected state aid scheme) and describe these projects in textual form as regional case study on 2 to 4 pages in textual way.

The case study provides additional qualitative information for a selected state aid scheme complementing the state aid scheme description which has to be done by every partner for the selected state aid schemes.

The Case Studies also complement the findings of the descriptive analyses over the selected state aid schemes and the identification of Good Practices. If the selected state aid scheme has a very particular (European) State Aid regulation, the Case Study can also focus on the specific regulation.

The case study (2 to 4 pages) shall promote the respective state aid scheme in an easy readable and understandable way clearly highlighting the particularities of the schemes and the possible impact.

Target groups of the Case Studies are companies as (potential) beneficiaries as well as managing authorities and intermediaries.

The identification of the individual projects for the Case Studies will be done in parallel to the data gathering and descriptive analysis and has to be finished with end of the descriptive analysis.

The proposed structure by Lower Austria for each Case Study:

- 1 Title of the Case Study
- 2 Topic of the Case Study
One to two sentences
- 3 Description of the funded project

Approx. 1 page

4 Evidence of Success

Approx. 1/2 page: quantitative and qualitative impact on beneficiary

5 Project volume: [amount in Euro]

6 Project Duration: [months]

7 Funded by [name of state aid scheme] under [SA topic / State Aid Regulation]

8 Contact person for State Aid Scheme

Name:

Organisation:

e-mail:

Website:

9 Good Practices

The identification of the GPs is based on the TOP5 list.

Maybe only the TOP 3 will be taking into consideration depending on the overall number of eligible SAs for the single ranking.

For every SA: the aggregated number of points over all rankings is divided by the number of eligibilities, means how often the SA is eligible for a ranking for the pre-selected criteria and the chosen impact indicator. The overall GPs are those with the highest average score over all rankings.

At the Study Visit in Opolskie in March 2012 the partners decide to change the rules for the identification of the Good Practices: every partner will define one Good Practice SAS from the own region based on the gathered information about the SAS and the regional framework. In addition the Top1 ranked SAS over all TOP rankings is considered as Good Practice.

10 Study visits and Best Practice state aid schemes per topic

Study visits will be carried out for single topics of state aid regulations with input from

- Joint descriptive analysis/PIVOT analysis of state aid schemes with identified Good Practices, which can be presented by the respective managing authorities
- Additional inter-regional comparisons by single partners
- Textual description of selected state aid schemes
- Additional regional Case Studies for individual projects

Study visits will foster the inter-regional exchange of common descriptive analyses results and learning from Case Studies. Therefore all required information has to be disseminated before the study visit.

During the Study Visit the partners will vote for the Best Practice scheme of the respective topic taking all above mentioned results/information into consideration. In case of a sufficient number of state aid schemes for a single European State Aid Regulation under the respective topic Best Practice schemes could also be selected for a single regulation.

At the Study Visit in Opolskie in March 2012 the partners decide to select among the Good Practices the Best Practice.

Furthermore a Study Visit could also include an on-site visit at a beneficiary or a workshop on specific state aid topics with invitation of beneficiaries for presenting the project results and discussion with OSAIS partners.

11 Staff exchanges

Within the Staff Exchanges the elaborated documents like aggregated overviews, description of the selected state aid schemes for the impact analysis, TOP Ranking lists and PIVOT applications are facilitating inter-regional exchange and comparison of the funding schemes of the participating regions in the SE. Therefore it is highly recommended that the responsible managers/organisations of the respective state aid schemes and the persons involved in OSAIS regional data gathering and data analysis are participating in these Staff Exchanges.

12 From gathered individual impact on beneficiaries towards the macroeconomic effects of individual state aid schemes

The analysis of impact of state aid schemes and their macroeconomic effect on the regional economy can be divided into 4 steps:

1. Gathering Data about the impact on individual projects under a state aid scheme on their beneficiaries by interviews and database queries (see chapter 5. In-depth impact analysis of individual project data/results)
2. Calculation of the expected impact of a state aid scheme on a company deducted from the data collected in step 1: depending on a company's size, age, sector and also other facts the expected impact of a state aid scheme on this company can be reliably estimated.
3. Using results from step 1 and 2 and having the knowledge of all companies (whole sample of beneficiaries) which received the respective state aid scheme regarding beneficiaries' size, sector and age, the overall impact of the state aid scheme on the whole sample of beneficiaries can be calculated by extrapolating the gathered impact on the sample of interviewed companies to the state aid's total effect on all beneficiaries regarding additional investments and maintained/created jobs.
As prerequisite the companies in the interview-sample must be similarly structured than the whole population of beneficiaries of this respective state aid scheme in terms of size, age and sector.
4. With the results gained in step 3 the state aid scheme's macroeconomic effects on the whole regional economy can now be calculated. That is, we know from step 3.

12.1 Calculation of expected impact of state aid scheme on single companies and Quality Check with control group

For the calculation of the expected impact of a state aid scheme on a company (step 2) the gathered information of step 1 should be verified: For a verification of entrepreneurs' (= beneficiaries') statements about the direct impact of the analyses state aid schemes on the companies and in order to increase the quality of the impact analyses the OSAIS partners have discussed the possibility of using a control group.

Several questions could be tackled with such a control group:

- Are the statements of the beneficiaries regarding the direct impact of the received funding realistic?
- Are the state aid schemes supporting the right companies?
- What is the performance of the beneficiaries in comparison to not funded enterprises?

- Are there any “hidden” selection criteria before /during the application procedure? Like
 - **Self selection:** Not all companies want to grow! Not all companies want subsidies! It could be that only the best or the worst companies apply for subsidies.
 - **Governmental selection:** Not all applying companies are selected to receive grants. Governments might prefer those which need it most (“Aiding the poor”) or choose the best (“Picking the winner”).
- Can any windfall gains identified for the analysed state aid schemes?

For OSAIS there are several possible alternatives approaches:

- Creating a control sample of not funded (better refused) companies with a similar structure (company size of sample, sectors, age) like selected sample of funded SMEs:

A performance analysis of this control group could be done, but requires additional data gathering through interviews as main source and using further information sources if available.

- Regional random sample of companies (doesn’t matter whether funded or not) with a mix of company sector, size, age, which is similar to the sample for the impact analysis.
- Using a multivariate linear regression to estimate the impact of subsidies. Imagine that you have data on 10 companies (around 30 are necessary to do proper calculations, here 10 serve as an example), where the companies’ private money invested and the public subsidies are known as well as the projects’ impacts on turnover, which are given in thousand Euro in columns 2, 3, and 4:

Company	Private	Public	Measured Impact	Explained by Private	Explained by Public	Explained by Both
1	100	28	194	100	84	184
2	120	25	179	120	75	195
3	36	18	112	36	54	90
4	52	12	71	52	36	88
5	87	37	188	87	111	198
6	131	10	177	131	30	161
7	60	40	172	60	120	180
8	12	9	31	12	27	39
9	21	15	65	21	45	66
10	20	4	13	20	12	32

An adequate linear regression can now estimate the impact of private and public money on the measured impact – even if these two variables differently affect the project’s impact on turnover. In this extreme example, one Euro of

private money produces one Euro of additional turnover, but one public Euro generates three Euros of additional turnover. In the example, company 7 invests 60 on its own and gets a grant of another 40 – leading to an impact of 60 from their own money and $3 \times 40 = 120$ from public money. In total, the model estimates an expected impact of 180, while it was 172 in reality. Such deviations are natural, as real life can never be completely described by a model. But the more data points are available and the more variables can be used, the better the estimation will be. We can even calculate the approximate error of the estimation and several other “diagnosis-statistics” to see how good the model describes reality.

As some state aid schemes’ impacts can better be described by absolute numbers (as in the example) and others by percentages or even elasticities, these variations will be calculated too.

The advantage of this approach is that it does not require a not-funded control sample, but filters the information out of the different levels of subsidisation of the projects (company 7 gets 40 public money, company 10 only 4 – thus the impact of public money in company 7 will be 10 times bigger than the impact in company 10.)

For step 2, the OSAIS partners decided that a quality check with a control group of not funded/refused enterprises is not possible within OSAIS due to the high effort and the given budget restrictions. Also the use of a control group of regional companies is very unlikely due to gaps in performance data availability.

Without such a control group of not funded/refused companies the following calculations cannot be performed:

- Quantification of windfall gains (crowding out of private funding),
- Quantification of self selection,
- Quantification of governmental selection.

Applying alternative 3, the linear regression estimation, OSAIS partners can still perform an analysis of the expected impact of single state aid schemes on a company with possible results like “A project of the R&D state aid scheme “RDIT” saves/creates six employees per 100.000 Euro for a medium sized, mature company from the pharmaceutical sector.”

In order to run this analysis for expected subsidy’s impact the following data are required:

12.1.1 Impacts – Obligatory

The state aid scheme’s impact on the beneficiary is obligatory.

Required data (in brackets the ID of the respective question from OSAIS interview guide):

- **Creation / Maintenance of jobs.** Q 150. – 167. E/R/A 1 and 2.

- **Creation / Maintenance of R&D jobs.** Q 150. – 167. E/R/A 4 and 5.
- **Creation of additional turnover.** Q 150. – 167. E/R/A 3.
- **Additional R&D budget.** Q 150. – 167. E/R/A 6.
- **Additional exports.** Q 150. – 167. E/R/A 7.

12.1.2 Scheme, Company & Project – Obligatory

As the individual impact is now known, it is now relevant by what factors the impact alters. E.g. has the state aid scheme a higher impact on smaller companies or on medium sized ones? How important is the sector for the scheme's impact? These are questions c) and d) below.

It is possible and likely that money invested by the company itself has different impact on the project than money coming from state aid schemes – this is a finding frequently cited in literature. Therefore we need to know how much was invested by the company itself and how much originates from public subsidies. These are questions a) and b) below which are *inter alia* necessary for the linear regression described above.

For the same reasons it is necessary to know the company's R&D staff and budget if the analysed state aid scheme is R&D related. If it is not, that data is still valuable. Therefore answers on questions e) and f) are required.

Required data (in brackets the ID of the respective question from OSAIS interview guide):

- a) **Total project budget.** Q 60.
- b) **Subsidy** (in whatever form Grant, Grant equivalent, loan,...). Q 80. – 147.
- c) **Main sector of company** (two digit NACE code). Q 12
- d) **Company size.:** Q 16
- e) **For R&D projects only: R&D staff in relation to total staff.** Q 17 – 36 a/b/c 6.
- f) **For R&D projects only: R&D budget in relation to turnover.** Q 17 – 36 a/b/c 6.

12.1.3 Other Variables – Highly Recommended

Any additional data on the company allows deeper insights. Especially the following variables are valuable and often cited in research articles to affect a subsidy's impact. If you think that certain variables are important in one of your state aid schemes (anecdotic knowledge from interviews, former research, ...), let Lower Austria as C3 Coordinator know as this information might be very helpful for the analysis.

Required data (in brackets the ID of the respective question from OSAIS interview guide):

- **Annual turnover.** Q 17 – 36 a/b/c 1.
- **Founding year of the company.** Q 13
- **Export share in relation to turnover.** Q 17 – 36 a/b/c 5.

- **Debt-equity ratio.** Q 17 – 36 a/b/c 6.
- **R&D staff in relation to total staff.** Q 17 – 36 a/b/c 6.
- **R&D budget in relation to turnover.** Q 17 – 36 a/b/c 6.

12.1.4 Decision

The calculation of expected impact of state aid scheme on single companies will be done by linear regression analysis (Matlab) which requires the data input as listed in the chapters before.

No control group will be used

12.2 Total impact of single state aid Scheme

To extrapolate from the calculated expected impact of a state aid scheme to its total impact (Step 3), it is necessary **that the companies in the interview-sample are similarly structured than the whole population of beneficiaries** in terms of size, age and sector – as far as possible and if the structure of the complete sample of beneficiaries is known.

If the selection of a fully representative sample is not possible then: If the structural distribution over size, age and sector is available for the selected sample and the overall population of the respective state aid scheme, conclusions on the systematic bias can be drawn. The less data about distribution over size, age and sector for selected sample and for the overall population of the respective state aid scheme are available the less reliable is the extrapolation of the overall impact of the respective state aid scheme.

The analysis of the total impact of a single state aid scheme requires the knowledge of the structure of the whole population of beneficiaries of the respective state aid scheme in terms of size, age and sector. But for several partners the access to this information will not be possible as checked with the respective SA scheme managing authorities.

Thus the participating partners decided at the meeting in Cyprus to stop with the analysis of the total impact of single state aid schemes as this analysis is not feasible within OSAIS under the revealed frame conditions.

12.3 Macroeconomic effects

Knowing this total impact on all beneficiaries, we can calculate the state aid scheme's effects on the rest of the regional economy, the macroeconomic effect of a single state aid scheme.

Such calculations of macroeconomic effects take around five days per state aid scheme when all data are ready at hand. However, this is usually only the shorter time span compared to data gathering (list of data see below). Calculating macroeconomic effects therefore only makes sense if you know where to look for data and if the state aid scheme is reasonably extensive. Because the macroeconomic effects are negligible for state aid schemes with a small total number of beneficiaries and/or with a small net cash equivalent.

Lower Austria presented at the Trencin meeting an approach applied 2 years ago in Lower Austria in order to estimate macroeconomic effects of the regional innovation support on basis of 70 interviews with companies. For more information see the uploaded Trencin presentation in the intranet. Following the discussion at the Trencin meeting about the carrying out an analysis of macroeconomic effects of the analysed state aids schemes Lower Austria has detailed the required data to be provided by every partner in order to be able to calculate the different macroeconomic effects of state aid schemes:

12.3.1 Basic calculations – Obligatory

Without these data no macroeconomic calculations are possible at all!

- **Input- / Output-Table:** A regional IOT is highly recommended, a national IOT allows to calculate effects on the whole nation, which is the upper limit of the regional effects. Usually regional effects are smaller by 20% to 80%. As this discrepancy is intolerable, the application of the national IOT is only acceptable for small countries and has to be verified by each partner
Possible Source: Statistical Institution.

An input-output table is a table within which the production- and consumption-streams of an economy are written down. You see, which sector (call it sector A) delivers how many of its goods to any other sector (sectors B to Z), to exports, and to final consumption. On the other hand, one can also see from which other sectors (B to Z, plus imports and working force) the producing sector A receives goods and services.

- **Total additional investments:** Available from our own project.

12.3.2 Employment Effect

These effects arise from additional employment in the subsidised companies and those companies which (in)directly produce intermediate goods for it:

- **Employment data per sector.** This may be available in the IOT, but it is for sure in the “performance and structure statistics” of your country.
Possible Source: Statistical Institution.
- **Turnover per employee in each sector.** This is highly recommended, but not absolutely necessary. Usually it is available together with employment data from above.
Possible Source: Statistical Institution.

12.3.3 Purchasing Power Effect

Additional employment generates income for the employees. Not all of that leads to increased regional purchasing power, as taxes and social insurances have to be paid, some money is saved and some spent abroad.

- **Average income available for domestic consumption:**

- **Average net income:** Could be directly available. If not, it can be calculated from **Average gross income** minus **average social insurance payments** minus **average income tax**.
Possible Sources: Statistical Institution, Ministry of Economics / Social Affairs.
- **Savings rate.** Regional should be similar to national.
Possible Source: Statistical Institution.
- **Consumption abroad / outside the region:** Money spent abroad by buying on the internet or during holidays. For regional analysis, consumption outside the region, but inside the country is necessary too!
Possible Sources: Statistical Institution, Ministry of Tourism / Economics.

12.3.4 Value Added Effect

Value added, broadly speaking, is calculated as the sum of wages and profits. It can be shown that this equals the difference between the finished product and the inputs necessary for production (i.e. the value which is added to the inputs when they are transformed into the output). Hence the name.

- **Total additional investments:** Available from our own project.
- **Regional IOT** is highly recommended, as value added networks are often regionally very pronounced.

12.3.5 Indirect and Induced Effects

Are “additional multipliers” on the above effects due to the value added network and consumption of additionally employed persons.

- **Average income available for domestic consumption:** Same as for Purchasing Power.

Regional Input-Output Table compulsory for partner regions from larger countries are compulsory for running the macroeconomic effect analysis in a proper way. But the Regional IO Table is only available for Lower Austria. For several OSAIS partner regions like Veneto, Western Romania, Lisbon and Tagus Valley Region Western Slovakia and Champagne-Ardenne not regional IO Tables are available. In case of Larnaca, where also the national IP Table could be applied, the data for Cyprus stem from 1986 and thus are outdated.

Thus the participating partners decided at the meeting in Ayia Napa to stop with the macroeconomic analysis as this analysis is not feasible within OSAIS under the revealed frame conditions.

13 Action Plans

According to the OSAIS work program 6 OSAIS partners will develop an own Action Plan. This Action Plans are based on "exchange of experiences" and the analysis results with detailed specific aid schemes focusing on the most efficient way to support the SME system with the full band width of state aid in all contrivable economic, environmental and social areas. The Action Plans will be submitted to the relevant regional legislative/executive bodies. The Action Plans describes a "new approach to policies subsidy" and will be a tool for transferring Good Practices.

Lower Austria proposes the following structure:

- 1 Description of selected state aid schemes for impact analysis
- 2 Regional context setting
- 3 OSAIS analysis results of selected state aid schemes
 - 3.1 Experiences from data gathering
 - 3.2 Analysis results for SAS 1
 - 3.3 Analysis results for SAS 2
 - 3.4 Analysis results for SAS 3
- 4 Case Studies
 - 4.1 Case Study 1
 - 4.2 Case Study 2
 - 4.3 Case Study 3
- 5 Concept for Implementation
- 6 Transfer and implementation team
- 7 Implementation Schedule
- 8 Budget allocation and Resources for implementation

14 Sustainability Aspects

14.1 Dynamic OSAIS database

It might be of interest for the OSAIS partners (or at least some of them) to continue with and extend the OSAIS database over the next years after the formal OSAIS project with additional project related data. This can be done in two ways:

- Adding new samples: Gathering information from additional state aid projects for the years 2010, 2011, 2012, 2013,
E.g. gathering every 3 years 50 to 100 additional project data sets for already selected or further state aid schemes;
- Panel Wave: Further observatory of the existing sample of interviewed companies regarding the impact of projects (complete the impact at project end, after years) and the companies' performance (turnover – staff – R&D – export) over several years.
E.g. adding these data every three years for the existing sample

Also both activities can be combined.

It is not necessary to make a decision now. It is better that the OSAIS partners can gather experiences within the OSAIS project and then decide afterwards about a continuation of the OSAIS database.

14.2 Online internet database

The OSAIS methodology doesn't deal with the installation of an internet based database for OSAIS where partners can directly feed in their data and make online database queries.

If the OSAIS partners consider the results of the OSAIS project as useful and decide to continue with gathering additional data in a dynamic OSAIS database and run further analyses (see sustainable OSAIS database) as an inherent part of the regional monitoring system of regional state aid schemes, then it might be helpful to implement an internet based database access with online database queries.

It is not necessary to make a decision now. Therefore the OSAIS partners can gather experiences with the OSAIS project and decide afterwards about such an internet database in combination with the continuation of the OSAIS database.