THE SPATIAL MONITORING SYSTEM OF THE GERMAN FEDERAL OFFICE FOR BUILDING AND REGIONAL PLANNING (BBR) AS A TOOL FOR POLITICAL COUNSELLING – FROM THE MEASUREMENT OF THE EQUALITY OF LIVING CONDITIONS TO THE MEASUREMENT OF SUSTAINABLE DEVELOPMENT

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1. Introductory remarks

According to the federal system of Germany, the Federal level is not in charge of the current planning and running of urban and regional affairs. However, according to the fundamental law, the federal level has a duty to observe the spatial development of Germany in regard to the fulfilment of the overall aim of the quality of living conditions. In order to deliver information and judgement about the fulfilment of this requirement, the Federal Government uses the tool of a spatial monitoring system, which is the basis of Federal reports about the spatial situation of Germany. In the beginning of the Federal Republic, the measurement of the equality of living conditions was mostly focussed on a difference in urban and rural areas. This changed considerably when it became apparent that the differences between urban and rural regions were overruled by growing differences and disparities between the urban regions in old industrialised regions and those in still booming areas. Normally, the measurement of these disparities was done by judging if one region was below or above the national average. In addition, it was used as a tool to set limits for the subsidies which were supplied by programmes of regional development. A procedure comparable to the proceedings of the European Union and their regional Structural Funds. Beyond the internal discussion of such programmes and their effects on regional and urban development
in the public, the considerations about the measurement of the equality of living conditions were more internal than public. This changed considerably when after the unification of Germany, the “normal” regional differences, which could be observed between urban areas and very peripheral rural areas on the hand and between old industrialised areas and booming urban areas on the other hand (the so-called south-north decline) was overruled by the differences between the east and the west of Germany. While the differences within the old Federal Republic were mostly due to different dynamics of regional development, to some part due to structural changes caused by the effects of globalisation, East Germany after unification was heavily affected by the transformation processes, that means the abrupt adjustment of the regions of the former GDR caused by a process of deindustrialisation and a complete structural change in the rural areas. This resulted in a new wave of thoughts about regional disparities. Under the promise of the Federal Government that these differences soon would disappear and the recovery of these regions would form flourishing landscapes while the effects of these processes still were being desperately awaited, they were suddenly intensively discussed when the president of the Republic, the economist Köhler, stressed the point that regional differences will continue and that these differences cannot be balanced by subsidies. This remark raised public discussions because it was misunderstood as a statement against the so-called equality of living conditions as an overall policy orientation. In the public discussion, this was in some areas and by some people understood as a statement of continuing and future benign neglect for regions which fell behind others and as the open conviction of the politicians that nothing really can be done. Nobody really looked at the figures and their regional distribution. Nobody asked how the quality of living conditions could be measured and judged. This highlighted the fact that there is a big gap between the consideration of such overall targets and current documents about disparities or equalities. The problem is that for experts and those who are in charge of regional policies and regional development the facts are quite well known but that there is no general public discussion about the consequences of such constellations (disparities or cohesion), just some sort of public amalgam consisting of aspirations and convictions. In the context of the former GDR, this is more complicated because a lot of people living there have the orientation that the state, not them, has to offer solutions. If these solutions offered do not meet their aims then the state or the government will be blamed. One possibility to solve this problem is to publish and to inform about the living conditions more openly. And the fact that some publication by a private agency, which pinpointed quite frankly at the differences of living conditions in Germany and which dared to rank these living conditions made quite clear what important impact on the public discussion this can have as well. However, in this context public discussion only means a discussion of about a week in the newspapers, some radio and TV stations but then it disappears and as far as I know does not have any permanent impact. Taking this into consideration we have to take for granted that we need more of such public discussions on the one hand. On the other hand, in relation to the incompleteness of empirical data and information we have to think about how the information about regional and urban living conditions can be concentrated in a way that this information is more open to and in the public than we can find it now in documents of different governmental levels.

Taking into consideration what a deep impact the evaluation of the educational system of the Federal Republic of Germany by the OECD had on the public discussion and on the discussions of many people with kids in Germany, the question will arise if there is a possibility of the OECD to compare living conditions not only in regard to education but also in regard to other important sectors in an international context. In my opinion, this comparison could deliver more detailed information based on common insights and professional advice in order to raise the question if the solutions of the, regional, state or Federal Government for the development of the spatial conditions in order to raise the equality of living conditions has improved or worsened. Within the context of regions, states or nations, there should be, conditions to measure such living conditions. In the following, I would like to present some facts and
figures about the way how my institute has developed the spatial monitoring system since the beginning of the seventies to the status of now, at the beginning of a new century.

This system is based on data which have for a long time been regionally collected by the different official statistical offices. Due to the fact that the Federal level does not have any direct influence on urban and regional affairs, there was a lack of standard indicators to compare urban and regional development. The Federal Research Institute for Regional Geography and Regional Planning started the process of development of such an indicator system by systematically collecting data acquired from the different statistical offices of the German Federal states (Länder) and by persuading these agencies to develop a common system of regional indicators. Little by little, this led to the development of a system of statistical data leading to the idea and existence of an urban and regional monitoring system. The idea behind the construction of this system was not to develop a system of all the indicators which could be thought and wished for. We rather started the other way around by using the existent statistical data in order to develop a system of indicators to be collected and to be enlarged overtime and which should cover the whole country. In this way, a lot of data had to be excluded because they were not annually collected or only covering parts of the country. Therefore, the system is not yet completely what we have thought of. However, we have observed a lot of systems following brilliant theoretical constructions which clashed or failed because their aspirations did not meet the statistical reality. In this way, I would like to present you now some ideas about the system we have developed and some products of the system which will allow you to judge if it is also worth to be discussed in an international context.

2. Remarks concerning the East-West differences in Germany

Let me start with some facts and figures about the greatest disparities in regard to the equality of living conditions we can observe now in the context of Germany. If we look at the map of the distribution of unemployment all over Germany, it is more than evident that the general structure of these disparities is characterised by the East-West differentiation. Not only this differentiation can be observed but, as I said before, the differentiation between the north and the south of West Germany as well. This is not the only possibility to measure such disparities. There are others as well. Some are concerned with the measurement of purchasing power and some are more generally concerned with the migration of people. In this way, we can also see that in West Germany the population is still continuously growing while the East is typified by areas which people tend to leave. This does not only go in regard to the actual migration by now but also in regard to the prognosis we have done about the future population development. In some way all these figures typify the growing disparities within Germany on the one hand. On the other hand, if we look more closely at the population development of different towns for instance, we can see that, beyond the overall picture of growth and shrinking showing the differences between East and West, we also have shrinking towns and communes in the West. They are in some way distributed all over Germany which leads to the general conclusion that the times when we could say that for instance the rural areas were the losing areas and the urban areas were the winning areas are gone. Every region has to be looked at individually, but on the other hand it has to be compared with other towns or regions in order to get a clearer analytical picture about what is going on. In this way, our endeavour to discover disparities or homogeneities is a powerful tool to pinpoint a development and its possible explanations.
Inhabitants 2000

Area cartogram: The counties of the Federal Republic of Germany are distorted to make their area proportional to the number of inhabitants. The topology of the boundary network is maintained.

Change rate of inhabitants from 1990 to 2000 in percent
- 10.0 and more
- 5.0 until 10.0
- 2.0 until 5.0
- -2.0 until 2.0
- -5.0 until -2.0
- -10.0 until -5.0
- until -10.0

class frequencies

Demographic development 1999-2020

Change of population between 1999 and 2020 in %
- up to below -7.5
- -7.5 up to below -2.5
- -2.5 up to below 2.5
- 2.5 up to below 7.5
- 7.5 and more

Database: BBR population forecast 1999-2020
In contrast to these overall pictures of the East-West disparities, which are in some way real challenges for the transformation processes which still have to be tackled, we can also observe a lot of positive signals, which show that the change of East Germany towards an adjustment to the level of living standards of the West is already on the way. Let’s take for instance the case of infrastructure. This is important because infrastructure, as we all know, is a prerequisite for further development into many directions, into the direction of regional development but also into the direction of tourism. In this way, the investment in the traffic infrastructure e.g. is one of those developments which have quite easily been recognised from the outside. Thus, our analysis e.g. of the **accessibility of highways** has shown that it has improved quite considerably, for enterprises and for the population as well. Especially in the Länder of Mecklenburg-Western Pomerania, Saxony-Anhalt and Thuringia we can see that the access to the highways is easier and faster than ten years ago. In many regions of these Länder you need today about twenty minutes less to get to the next highway. If you consider that the factor of time is one of high value we can see that the quality of locations in these regions has considerably improved. For all the new Länder we can altogether say that from 1992 to 2003 the percentage of the population who at least needed thirty minutes to get to the next highway access has considerably declined from 20.3 per cent to 10 per cent. This means that for about 1.7 million people living in the new Länder, their access to highways connecting them to the national system of highways has considerably improved. Accessibility has, of course, also improved in West Germany, but to a quite smaller degree owing to the fact that the highway system in West Germany has been improving for a long time by establishing one of the most efficient highway systems in Europe. However, this also has the result that in the future, Germany will be one of the most intensively used transit countries in Europe.
These two examples might give you some insight into the possibilities of the spatial monitoring system we have developed with so-called objective data, that means with data from official statistics. In addition to these so-called objective indicators, we have developed so-called subjective indicators. These stem from survey research we conduct annually with standardised questions concerning the social and economic background and with special questions on different aspects we are interested in. Since the unification, we have been doing this survey research covering both East and West Germany. This has given us good insights into the development of the transformation process we can observe in East Germany. As an example, I want to show you the reactions to a survey on the satisfaction with the condition of buildings people live in. You can see that in West Germany the level of the judgement that the maintenance is of good standard has been on a relatively high level all over the nineties. But if you look to East Germany you can easily see that the level of satisfaction in the beginning of the nineties, that means immediately after unification, was very low. It was almost half of the amount of percentage points of the West but then it slowly continued to grow and finally it reached almost the level we can observe in the West. So the little difference in regard to the positive evaluation of the maintenance of houses between East and West shows that high investments in the rehabilitation of the building stock or in new houses had very positive effects. This shows that, as far as possible, not only regarding accessibility but also in regard to the housing stock quite a lot of investments in East Germany had positive impacts which are recognised by the people.
This can be also seen if you look at another topic of interest, namely the **satisfaction with the apartment**. And another positive development in the East can be observed in regard to the development of the **environmental situation**. If we look e.g. closer to the evaluation of satisfaction with the environment we can see that in West Germany over the nineties, about half of the population was satisfied with the environment but in the East in the beginning it was only less than 20 per cent and at the end of the century or the beginning of the new century it had reached almost the level of the West.
The other side of the coin is the fact that, measured by official objective statistics, East Germany has an **unemployment rate** which is considerably higher than in the West. However, by looking at our subjective indicators, namely the judgement of the people we asked concerning the evaluation of their **personal economic situation**, we can observe that in 2003 the people evaluate their personal situation much better than they have done in the nineties. That means, improvements are at least on the way. At the beginning of the nineties, there were 33 per cent who evaluated their personal economic situation with “good” but this percentage has risen at the end of the nineties to 40 per cent and in 2003 there were about 42 per cent of people in the East who said that their economic situation was quite good in comparison to 47 per cent in the West. Neglecting the regional differentiation we can say that to some degree the equality between East and West has been reached. An information quite important beyond all day-to-day political discussions more reflecting the overall picture of complaints.
If we look to the figures about the evaluation of the security of jobs we can see that in the East the level of this judgement for those who still have jobs has risen since the unification. But there are still considerable differences to the West in regard to the presence of “very secure” jobs. On the other hand we can see that the share of those who evaluate their jobs as “rather secure” is even slightly larger in the East than in the West. Thus, when we look at these figures, we can see that in general the level of satisfaction in the East is in many fields equivalent to that one in the West, even in contrast to the figures from the official statistics, e.g. in regard to unemployment. Additionally, the feelings are much better than those expressed in the public or received in the mass media. This is quite impressively documented by the fact, that the subjective feelings about jobs and job security have improved since the unification started. If we also take the so-called hard facts of infrastructure, improvement and modernisation into account, we can even say that by now in many fields East Germany has at least reached the point of West Germany.

The fact that there is still some sort of overall dissatisfaction, a landscape of complaints in East Germany by the people living ignores on the one hand that there has been considerable success but on the other hand it reflects the aspirations people have. And there still seems to be a lot of unfulfilled aspirations. But the quarrels and complaints have to be taken seriously. Altogether we can see that the combination of indicators from objective data with those from a subjective background (survey research) allows to run analyses about the regional situation or the general situation between East and West.

So far my initial arguments in regard to the status and the abilities of the spatial monitoring system within the context of the Federal Office for Building and Regional Planning. In the following, I would like to be a little bit more fundamental that means I want to reason the situation of the monitoring system to give you a little bit more insight and finally I would like to show you the further development of this monitoring system in regard to new approaches in the context of spatial analyses and spatial planning.

3. The spatial monitoring system of the BBR

Our spatial monitoring system started with the idea that co-ordination as an approach is the central duty of regional planning and regional analysis in the context of a federal system as a system where no independent actor exists. Every actor on one of the different levels has to take the interacting effects of attitudes or positions of those on the other levels into account. This interconnected or intertwined federalism, which includes many aspects of interwined politics, evidently needs early information about
regional disparities and their development in order to develop strategies for action or to influence the regional development which is at disposal. Having such a basic information there is a good chance to discuss and to decide if and where action is needed and which strategy can be used and how this could be co-ordinated and finally to evaluate if the targets were reached. Spatial monitoring as an instrument of information is gifted to take notice of the way how regional or spatial policy is developing or even if there are some misdevelopments. In this way, spatial monitoring has two sides: on the one hand it can evaluate the success of some politics and on the other hand it can deliver some prognosis about future developments. In this way it may draw the attention to areas where action is needed. With spatial monitoring and its indicators we can combine the discussion of targets with ideas about new programmes and the choice between different strategies to reach improvements in these policy areas. By continuing the monitoring process we can also judge how the targets are reached and if the policy is implemented or how its implementation has to be improved. The main instrument of spatial monitoring are indicators based on different sources of regular objective statistics. They are the most important instrument to measure, compare and evaluate spatial development. Statistical data about regional development are the basis of spatial monitoring. A prerequisite for such a system is the fact that those statistical data have to be confronted with the problems and targets of spatial policies. Therefore, not all statistical data can be used within the spatial monitoring system. A selection has to be made and most important is the fact that those data covering regional differentiations have to cover the whole area under analysis (that is the national context) and that the statistical data have to be updated in short periods, mostly annually. Besides the data we receive from official statistics, there are also other sources of data about infrastructure, use of space and environment which are regularly produced from different non-official sources covering the whole area. In this way, the statistical data also can be combined with basic data from geographical data systems. Such GIS data create the opportunity to combine geographical data with statistical data covering regions or spaces. Besides these basic geographical data there is the need to connect the statistical data with administrative data (boundaries) of spatial divisions. So we can connect our data with communes, counties or with other spatial units which are used for special or analytical purposes reflecting in some way administrative boundaries but we also create special analytical regions (e.g. areas of cohesion). However, what is quite important is the fact that by the use of such different spatial references we can combine the data from the communes to those from the next level, that means to the level of the counties, of the Länder and finally to the Federal level. Thus, there is a possibility to use these data on different administrative and geographical levels.

Regional living conditions in the Federal Republic of Germany and Europe
The main tool for the analysis and presentation of the results of spatial monitoring are maps and diagrams. Regional disparities, regional structures and regional interconnections can be made quite visible through such cartographic or graphic design. Therefore, for the presentation and analysis of our data we need quite sophisticated programmes to produce maps and diagrams related to our spatial monitoring system. From the seventies on, we had been developing these tools ourselves. Nowadays, we use software programmes with public access.

Our system, the spatial monitoring system of the BBR, is used by Federal policy-makers in relation to spatial planning. Although it has for a long time been the basis for regular spatial reports, it is now required by law. The spatial law now demands that our agency keeps this sort of spatial monitoring in order to have a continuing flow of data about the current position of spatial development and its change and the consequences of the change over time as a description and as a basis for analysis. But what is most important is the fact that the results of this monitoring system are not kept secret or kept as an administrative arcanum. They are reported to other policy levels and public users as well. That means the standard indicators of our system are not only accessible to administrators or politicians but also accessible to “ordinary” people like researchers, planners, teachers and students, policy-makers on different levels or even businessmen. The chart gives you an overview about the whole spatial monitoring system of the BBR. Generally it is a system of four different interconnected components. The first and the main component was and is the so-called „Laufende Raumbewachtung“ i.e. the continuous spatial monitoring system. The task of this component is to offer a continuous observation of the socio-economic living conditions in all regions of Germany as they can be identified by administrative boundaries starting from the communal level and going up via the county level to the state level and allowing different combinations of these data for specific spatial units. In addition, this system is now combined with the European perspective that means with data about the development of the European Union in relation to
the units which EUROSTAT uses and in addition to the comparative urban analysis related to the thirty largest cities in Europe (also cf. the European Spatial Planning Observation Network ESPON). In regard to the situation of large cities in Germany there exists an additional monitoring system about the inner-city differentiation of the largest cities which does not only allow to have small communes as a target but also subdivisions of or spatial differentiations within cities.

Finally, we have the possibility to develop indicators about the individual circumstances of the lives of persons and households according to the information they give us via survey research and also about the evaluation of their situation according to different questions we ask about their subjective feeling in relation to the quality of life. This survey research is done annually and as I have already indicated, since 1990, it was of special value for the different judgement of East and West Germans during the still ongoing unification or transformation process. The samples are representative and in this way valuable to judge Germany in toto and in regional differentiation.

All parts of this spatial monitoring system give us the possibility to pinpoint cohesion and regional disparities in the spatial development of Germany and especially in regard to the question if the development is following the requirement for equal living conditions. Most important for this spatial monitoring system is the tendency to have an overall picture about spatial development in the Federal Republic of Germany. Its target is not the case study or a very detailed analysis of a local or other special spatial development but it rather has the target to have a tool for comparisons of different regions of Germany in toto. It allows us to describe spatial developments and to analyse the background of such developments by empirical analysis and to lay the foundations for policy actions. This spatial monitoring system thus is a tool which can be used for active spatial policies which must not always be congruent. By showing the development of problematic disparities, politics and special policies we have the chance to take direct influences based on facts. The confrontation between these facts and the effects of policy may have some sort of dialectic relationship between the creation of policies and the analysis of their effects and the facts of figures of urban and regional observation and analysis. Having such a system at hand, it is also the duty of our institute and of the Government to report regularly on these developments. This is done by reports about spatial development which are now published every four year. In addition, as I have already said, we publish our data annually. We started twenty years ago by printing them and now we publish them on CD-ROM. All in all we can say that the spatial monitoring system has improved the information we have about different spatial policies on different spatial levels. Today we have very efficient information about regional development which can support the task of different spatial policies on different spatial levels. On account of the fact that there are growing regional disparities and a continuing struggle for different funds to be distributed over the regions and being confronted with diminishing natural resources, the instruments of spatial monitoring may even be more valuable in the future than they have been in the past.

4. Future perspectives

Having described the possibilities of our spatial monitoring system, especially in regard to the measurement of the equality of living conditions, I do not want to forget to pinpoint at the developmental side of our system which is now going towards the measurement of sustainable spatial development. This strategy to develop indicators measuring sustainable development follows again the same approach we have followed in the past. We do not develop an abstract and theoretical system of analysis of sustainable development with all the indicators you can wishfully use and then look for them and finally realise that you cannot find most of them or you find them only covering various specific areas (regions) or only over a very short time, sometimes even discontinuously. We rather tried to use our existing
structure to analyse sustainable development with indicators we had at hand or we could develop by looking at the official statistics. This strategy is connected with the national strategy for sustainable development which has been favoured by the Federal Government since 2002. The strategy has a long-term orientation in regard to the economic, social and the ecological development of our country. This orientation towards sustainable development also had a heavy impact on the overall general orientation of spatial development because the general target of sustainable development has now overruled the old orientation of equal living conditions. This was done by including the target of equal living conditions into the context of sustainable development. By creating this new overall general target, our institute has developed a concept of indicators which will tackle the problem of sustainable development.

We have done this by selecting three different dimensions which reflect the targets of sustainable development that means economic competitiveness, social and spatial cohesion (justice) and the protection of the natural resources. When combining these three sides of sustainable development, the so-called magic triangle, we have to pay attention that none of these aims is overruled by the other. Rather the social and economic development has to be evaluated or to be developed in the context of ecological prerequisites.

We have tried to tackle the requirement to analyse the status of sustainable development in the context of spatial development by selecting seventeen indicators.

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<th>Core indicators of sustainable spatial development of the BBR</th>
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The first area is economic competitiveness measured by three indicators. The first one is economic efficiency, the second the improvement of innovation and the third one is future-oriented qualification.

In relation to social justice we have selected indicators measuring the income and the dependence on public transfer money, the percentage of people working, the percentage of women working, the adequate supply of working places, the improvement of education and the improvement of the integration of foreign citizens, the supply of housing and the adequate supply with financial resources for the communes.
With regard to the **protection of natural resources** we have operationalised this by indicators measuring the reduction of the use of space, the protection of species and the economic use of energy, the reduction of waste production and the maintenance of water quality.

If you look closer at the indicators used you can see that we tried to get as close as possible to the target of measuring these different perspectives of sustainable development by using existing statistical data, however by interpreting them as indicators in the intended direction. By using these different indicators, however, we have to take into consideration that by now we do not have an elaborate positive definition of sustainable development pinpointed or concentrated by concrete targets. Such indicators which can be used for differentiation in order to evaluate if something has failed or not do not exist by now. There are no valid and accepted thresholds for sustainable development. But what we can do is to measure non-sustainable development i.e. we can judge the sustainable spatial development by pinpointing ex negativo at non-sustainable developments. By showing the deficits of sustainable development we can try to have some orientation. But we do not have by now exact perspectives and the deficits in one area do not reflect the deficits in other areas. In addition some deficiencies are compensated in other areas. These methodological approaches that means the measurement of deficits will show in which areas the sustainable development has not proceeded beyond some sort of minimal prerequisites.

I do not want to go into the details of the technologies of measuring these deficits of possible sustainable development but e.g. for the area of economic competitiveness we argue that the development of a region is non-sustainable if it does not reach 75 per cent of the national value in GNP or in relation to research and development and to the percentage of working people with higher qualifications.

If you look at the maps which show these deficiencies of sustainability in the dimension of **economic competitiveness**, we can see the dominant role of the agglomeration areas in regard to competitiveness and we also can see the growing deficits if you go from the centre to the periphery, if you go from the south to the north. Especially in large areas of East Germany, these deficiencies appear quite clearly. If we take all the three indicators together we can see that especially the north of the new Länder, i.e. the former GDR, has clear deficits in all three fields. If we look at the development of the deficits in economic sustainability we can see that all regions have improved and in some way the regions around the agglomerations more than the agglomeration itself. However, in many regions which are showing now some sort of economic deficiency the differences to the other regions have aggravated in the last years.
If we look at **social and spatial justice** we have also developed some thresholds for the indicators selected. If we look at the maps we can see that in almost all regions there is some deficit, but the largest deficits are situated in the north of the Republic. However, there is some differentiation between the old and the new Länder because in the old Länder and the northern parts there is a large percentage of people depending on social security, a low rate of women working and a low percentage of students going to higher education. In the new Länder, the share of people working is below the average employment and consequently unemployment is higher.
If we look at the development we can see that there has been some general improvement. Almost all regions in West Germany could reduce their social deficit. But this is only a relative success because the share of unemployed people and people dependent on social benefits and the debts of the communes have not increased beyond the national average. However, in the new Länder the deficit of sustainability in regard to the social dimension has risen. This is especially valid for unemployment and to the rising number of people depending on social benefits, also the share of working women has considerably decreased. Problematic developments have also happened in regard to the share of students graduating with a diploma from school.

In regard to the **third dimension** of sustainability, the **protection of the natural resources**, there is some special evaluation in regard to the new national aim of reducing the land use by 20-30 ha per day while we today have a land use of about a little bit over 100 ha. If we look at the general situation we have to state that by now almost all regions have some sort of deficit in the ecological dimension. The least deficit of the ecological dimension have Baden-Württemberg, Hessen, Rhineland -Palatinate and Thuringia and parts of Lower Saxony. But the most important factor in the context of the ecological development is land use. If we look at the dimension of development we can see that there is a tendency of improvement. Some regions could keep their standard and some could even improve. In general it can be said that the development of the deficits in regard to the ecological dimension is producing a very heterogeneous picture.
Let's now take a look at sustainable development with regard to all these three dimensions (cumulative sustainability deficit). Generally we can say that the largest sustainability deficit exists in those places with high deficits in all three dimensions. This is the case especially in East Germany, in some parts of north-west Germany and in some cases also in southern Germany. Regions e.g. with a high share of deficit in the West are dominantly rural areas with a low quality in regard to the environment and with a relatively low share of economic competitiveness. East Germany has a high share in total deficits and in those areas where deficits exist especially in the economic and the ecological dimension. Areas with low deficits are areas from the north to the south right in the middle of Germany. It is interesting to see that some agglomeration areas like Stuttgart or Frankfurt and especially the south-west corner of Germany do not show a big deficit.
If we look at the development since 1995 we can say that in two thirds of the regions there is a decrease in deficits but there are also other regions with a real increase. However, they include all sort of regions that means regions with a high, low and medium deficit. In other words, a relatively low deficit will not automatically continue in the future. But for every region it is very important to have information about its relative position in relation to sustainable development and in comparison to other regions. Comparing one region to the other creates the possibility to observe its own development track over time. We have visualised this by constructing a clock or network of deficits and sustainability and these clocks/networks show quite evidently that every region has its own profile of sustainability which can be compared with those of others. If we compare this over time, we can see quite clearly into which direction a region develops. Our spatial monitoring system offers regions some help to look at their own present development and at the development over time in order to understand their own position and development. And by comparing this to other regions this will help them to orient toward directions where they can improve or where they should improve.

If we put all these considerations in relation to sustainable development in regions we can say that there is something to be done politically. We can see that, if we take together economic efficiency, social justice and the economic use of natural resources, agglomerated regions have advantages with regard to disperse settlement structures because there is more efficiency through the concentration of private and public institutions. There is a chance of economies of scale and there is more social justice because the possibilities to keep minimal standards for those who are dependent on social benefits are given. On the other hand, we can see that the use of land and the reduction of traffic in these areas also delivers some sort of protection of natural resources. In general, we can see that one of the main action areas of the Federal Government in regard to the national sustainability strategy and its concrete actions in the area of spatial policy have to do with the sustainable development of settlements. Here the main target will be the reduction of land use.
By constructing and delivering indicators of sustainable development as we try to do, we can open a new field of action for spatial policy. These indicators will show individual regions how their policies have improved or how they have failed. In regard to the so-called „Politikverflechtung“, that means interwined politics, we can say that indicators, can help to guide the different levels of spatial duties toward some sort of interwined optimisation. Beyond these indicators indicating a problem and also evaluating a development, indicators can also help to enlighten the public about the development of a society as comes down to spatial concrete developments. Information as a tool to co-ordinate policies in this important field can be a very powerful tool.

5. Concluding remarks

By giving you an overview about the spatial monitoring system of the Federal Office of Building and Regional Planning with some concrete examples, I hope to have shown you that, beyond any special policy area, we have developed a system of regional indicators in Germany which will help us to better understand the social, economic and natural development we have in our very congested spatial constellation. We know that a lot of influences over those developments are not in our hand. But we also know that if we do not try to tackle and to aim at problem-solving at the local level, in the context of international and national developments, we will not tackle things at all. But if we know in detail what is going on in our countries, we still need more information what is going on in other ones in order to calibrate our knowledge to European and international standards. We need some comparison beyond our own national spatial system. We need comparison between regions in Germany but we also need comparison within Europe and within the world. At the moment Germany is tackling most of its problems resulting from the transformation of the former GDR into the West German system. But beyond these problems we have the effects of globalisation which have heavy impacts on all regions of Germany. However, this globalisation process also has impacts on other regions in the world and by comparing these different developments especially in regard to sustainable development in its three dimensions we could see at the national and international level into which direction the regional differentiation in the world will go, how it can be measured, how it can be improved, and what we can learn from it. There has been some improvement in the databases of Europe in the context of the European Union. The ESPON process is very much important for this. On the other hand, we have a clear deficit with indicators e.g. EUROSTAT has been offering by now. I think it should be an important aim to enlarge this international comparison beyond the European scale into the OECD because the problems of these highly developed countries united in this organisation have an impact are on the one hand general and important for the individual national level but on the other hand they are regionally differentiated and offer more comparison beyond national borders. By comparing them and following them over time, we can better analyse which factors have impacts, which ones not and what will be the impacts of the future improvement or non-improvement. I know that the creation of a common database of different national systems is quite difficult. However, having constructed a national system of data indicators on the basis of very difficult and not very stable (political and spatial) structures in the context of the German historical development and its federal structure, I think, we all could do a better job in the international comparison as well.