

Netzwerk Stadtlogistik: „Stadtlogistik: Vom Nischenmarkt zur urbanen Komplettlösung“

Aachen, 4. Dezember 2001

Anmerkungen von Sigrid Klein-Vielhauer, ITAS

Das Netzwerk Stadtlogistik lud gut ein Jahr nach seiner Gründung zu einer ersten, einem breiten Publikum zugänglichen Informationsveranstaltung ein. Das Netzwerk hatte sich zum Abschluss einer vom Ministerium für Wirtschaft und Mittelstand, Energie und Verkehr (MWMEV) des Landes Nordrhein-Westfalen geförderten fünfjährigen Konzeptions- und Umsetzungsphase von stadtlogistischen Projekten in Nordrhein-Westfalen im September 2000 gebildet. (Von den ursprünglich zwanzig Städten und Regionen, für die stadtlogistische Projekte konzipiert wurden, waren im Herbst 2000 elf in der Umsetzungsphase; siehe hierzu auch den Bericht zur Abschlussveranstaltung "Modellvorhaben Stadtlogistik NRW" in den TA-Datenbank-Nachrichten, Nr. 3, 9. Jg., Oktober 2000, S. 110-115). Zu dem Netzwerk haben sich die Städte Aachen, Duisburg, Düsseldorf, Essen, Gütersloh und Münster zusammengeschlossen. Die Geschäftsstelle (Geschäftsführer: Jörg Gehrke) befindet sich in den Räumen der GVZ DUNI Entwicklungsgesellschaft, Duisburg. Unter der Internet-Adresse <http://www.netzwerk-stadtlogistik.de> sind auch die vier Grundsatzreferate der Informationsveranstaltung zugänglich. Neben den Referaten gab es auch Gelegenheit zur Teilnahme an umfangreichen Diskussionsrunden unter der Leitung des WDR-Moderators Tom Hegermann.

Wie beim offiziellen Abschluss der Projektförderung erkennbar zeigte auch die Netzwerkveranstaltung im Dezember 2001, dass die ursprünglich mit dem Schlagwort City- oder Stadtlogistik verbundenen Hoffnungen immer noch nicht eingelöst sind. Bisher wurde nicht der empirische Beweis erbracht, dass einzelne Bausteine der Belieferung gewerblicher Kunden, die Heimlieferung für Endverbraucher oder eine Anlieferung an einer Zwischenstation (Warenübergabezentren) sowohl für den gewerblichen Kunden als auch für den Endverbraucher (z.B. in einem Parkhaus) eine we-

sentliche Veränderung von Volumen und Struktur des Gesamtverkehrs im städtischen Raum bewirken können. Eine Kumulierung vieler zielgerichteter Einzelschritte mit und ohne Kooperation zwischen den betroffenen Logistikdienstleistern könnte als eine Lösung der kleinen Schritte schon eher zum Erfolg führen. Bedeutsame finanzielle Förderungen auf Landesebene werden für das stadtlogistische Netzwerk in der nächsten Zukunft nicht in Aussicht gestellt. Eher wird eine qualitative und quantitative Ausweitung des Netzwerkes aus eigenen Kräften der Beteiligten erwartet. So könnten sich weitere Städte dem Netzwerk anschließen und auch in dem Modellvorhaben ursprünglich entwickelte Konzepte konkret umgesetzt werden. Vor kurzem hat das Land Nordrhein-Westfalen bzw. das MWMEV eine über den städtischen Raum hinausgehende „Landesinitiative Logistik NRW“ gestartet, die den generellen Informationsaustausch aller an logistischen Fragen Beteiligten mit verschiedenen Einzelaktionen unterstützt. Das Netzwerk Stadtlogistik mit seinen bisher sechs Mitgliedern plant für das Jahr 2002 eine Ausweitung des Internet-Auftritts und weitere Informationsveranstaltungen.

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The "European Research Area" initiative. Reflections upon a potential take-off in European RTD policy

The international conference "The Changing Governance of European Research and Technology Policy – The Dynamics and Potential Impacts of the European Research Area Initiative", Karlsruhe, 9 – 10, November 2001

by Jakob Edler, Fraunhofer Institute for Systems and Innovation Research

Two years ago, the European Commission launched a new approach for European research and technology policy (RTD policy), labelled the European Research Area (ERA). It is not yet fully clear which aspects of this am-

bitious attempt to leap forward in European RTD policy will finally survive political negotiations. However, the genie has escaped from the wonder lamp and the intensive discussion at all levels in favour of more harmonisation and integration of RTD structures has already changed the look of European RTD policy and led to structural adaptation, especially on the part of potential winners. In order to step back from the heated debate and take an analytical look at the current processes, a conference was held at the Fraunhofer Institute for Systems and Innovation Research, Karlsruhe, in November 2001. This article introduces the ERA debate and its potential significance for various levels of RTD policy-making and summarises the main discussion lines of the conference.

1 Introduction

Since the first announcement by the Commission in early 2000 (COM 2000) and the confirming resolution of the European heads of state at the Lisbon European Council in March 2000 (European Council 2000), the European Research Area has evoked hopes and fears alike. European policy-makers have dared to present a set of new approaches that would alter this architecture systematically and national policy-makers have been led to think anew about the whole architecture of research, development and technology (RTD) policy in Europe. Both the obvious tensions and the possible positive dynamics have not yet, however, received systematic attention from policy analysts, who have failed to reflect upon the challenges embedded in this new approach, both for the policy area and for European governance as such.

In order to reflect upon these RTD policy developments in Europe, an international conference on "The Changing Governance of European Research and Technology Policy – The Dynamics and Potential Impacts of the European Research Area Initiative" was held at the Fraunhofer Institute for Systems and Innovation Research, jointly organised by the Committee on Politics and Technology of the German Political Science Association at Karlsruhe in November 2001. It brought together leading international scholars on Euro-

pean integration as well as on research and technology policy.

2 ERA: A break in European RTD-policy

Why does the current debate deserve reflection? What is its meaning, what are the possible impacts of and hindrances for this approach to become a political success? Despite many attempts to reform the mode of operation, European research and technology policy has remained relatively stable since its beginnings in the 1980s. The Framework Programmes of the European Community for Research and Technological Development (FPs) have supported cross-border co-operation research projects and mobility in topics of European interest. According to the European treaties, the EU initiatives are subject to the criteria of subsidiarity and "European added value". However, the responsibility for the long-term financing of research institutions and research networks has stayed at the national and regional level, and co-ordination and harmonisation of national research and technology policies have remained a hollow treaty clause, never implemented. Thus, European policy in the field of research and technology has been characterised by a model of related but largely separated multi-level governance with a clear dominance of the national level.

Yet, if ERA were successful, European research and technology policy would allegedly take a qualitative step forward that could significantly change the relationship between the European and the national autonomy (COM 2000, 2001a). It would, ideally, lead to complementary rather than parallel structures. On the one hand, it would be serious about the functional bundling, co-ordination and harmonisation of national measures, oriented solely towards the greatest possible European effectiveness. ERA would take existing provisions of the Treaty, mainly Article 169, seriously, and would, for example, co-finance research that is financed nationally but integrated on a transnational scale within Europe. National programmes could be co-ordinated and parallel, transnational structures would be built (COM 2001a).

On the other hand, ERA would complement its project-oriented, transnational research

approach by European networks based on excellence, respectively very long-term, comprehensive, large-scale projects (also COM 2002). Practically speaking, a key player in the network of excellence would have complementary funds in addition to the basic funding received nationally. The Commission would gain more direct influence on research institutions through a long-term financing of networks of excellence that would be built around specific issues, be highly flexible and largely self-organised, but always accountable to the Commission.

This integrative European perspective advocated by the Commission is highly contested since it confronts dominating national and regional governance schemes which are characterised by policy competition rather than integration. The members of the EU (as well as strong regions) compete for the leading role concerning research and technological innovation, not only within the EU, but also on a global level. Thus, from the perspective of governance theory, the structural integration of research and innovation policy in a European Research Area would enlarge the competencies and the room for manoeuvre on the EU level at the expense of the nation states.

At the same time, a growing number of large, and increasingly also smaller, companies operate in the transnational perspective. National policy is more and more threatened to be forced into a policy race by corporate interests that are fully dominated by economic considerations rather than reflecting comprehensive national policy concerns. In this perspective, a research and innovation policy that would be well-tuned throughout the whole EU and between the diverse national and regional authorities might be a means for public policy to regain room for manoeuvre.

At this point it is still open which elements of the "European Research Area" will become effective. As *Stefan Kuhlmann and Jakob Edler* (Fraunhofer ISI) showed at the conference, European RTD is at a crossroads and there are still very different options perceivable for the future of European RTD policy and the innovation system(s) in Europe in general. In any case, the intensive debate on RTD policy logic has posed an enduring challenge for European, national and regional policy-makers and stakeholders alike.

3 Four perspectives on the meaning of ERA

3.1 A European perspective

The – potential – meaning of ERA can be analysed from at least four perspectives. First, of course, is the European perspective – or the perspective of European governance. Consensus was obvious about the assessment that ERA, as formulated in the first Commission communications, would indeed mean a leap forward. The discussion of possible future scenarios at the conference, the European RTD by Kuhlmann and Edler, the analysis of the policy-making process by *Thomas Banchoff* (University of Washington), the detailed analysis of ERA logic and instruments by *Chris Caswill* (UK Economic and Social Research Council) and a historical look at the development of RTD policy in Europe (Edler) all made clear that the implementation of ERA as laid out in the Commission papers would turn European RTD policy into a completely new multi-level game.

However, it is far from clear whether ERA will succeed in the first place and which factors will hamper or push this success. Here, Banchoff was rather pessimistic, arguing that even ERA, that had the backing of the Lisbon Council, could not overcome the inertia that has been characterising European RTD policy for two decades now. The building up of a strong and for many stakeholders meanwhile important distributive system has placed important actors at all levels in a conservative position, while national policy-makers would defend their stakes against European orchestration. Potential ERA losers might – in this perspective – succeed against winners. This estimate, however, was opposed by Caswill, who argued that ERA could very likely succeed just because it has taken all stakeholders by surprise and has succeeded in getting high-level backing even before opposition could be formulated. Caswill stressed the coalition building and structural adaptation of potential winners at a very early policy stage, which potentially could overcome inertia. A somewhat mediating position was put forward by Edler. He agreed with Caswill's "surprise" theory. But by citing the historic example of the genesis of EU RTD in the 1980s, he stressed that new approaches in a complex policy arena

need time to diffuse, and a “coup d’état” (Caswill) is of limited value whenever “money is not enough” and compliance by actors is needed. Therefore, ERA is still open and – ironically – its initial success at the highest policy levels may have been too abrupt, leading to a Pavlov-like anti-reflex by a large group of stakeholders. Therefore, apart from all the dynamism raised and dedication shown, the logic of ERA needs patience.

3.2 A sub-European perspective

A second view of ERA stresses the relationship between dynamics at the European level and national, respectively regional, RTD policy and innovation systems. A comparative analysis of three country cases (*Peter Biegelbauer*, Institute for Advanced Studies, Vienna) made clear how complicated and diverse national policy debates and policy formulation processes in RTD policy are. The acceptance of ERA at national level has much to do with the readiness and flexibility in which national debates are able to integrate the ERA terminology and logic. This, in turn, is partly determined by the openness of national discourse structures shaping interest aggregation. As for European policy debate, this openness is, as Biegelbauer shows, among other things dependent on the time of accession of the EU, i.e. the longer a country has been exposed to European RTD, the stronger the institutional – and cognitive – path dependencies that impede policy flexibility as demanded by ERA.

How diverse the relative importance of European policy structures and national RTD policy is was shown by *Johanna Hakala* (University of Tampere, Finland) and her discussion of the Finnish national innovation system. Clearly, Finland has become a major RTD and innovation success in Europe and it appears strong enough to almost neglect the European discussion. However, while European RTD seems to play a relatively minor role in the Finnish success story, Hakala showed the co-evolution of policy approaches at the Finnish national level as well as at the European level and, indirectly, points to the potential impact the success of Finnish RTD policy approaches might have had on the European approach. The country may very well have had an integrative impulse on the European RTD policy style.

In his discussion of accession countries and their relationship with a new RTD policy, *Peter Hilger* (University of Hanover) argues that for the accession countries ERA can be an important chance as well as a potential threat. Since ERA aims at positioning the European Union in the global innovation competition and aims at bundling European resources, large countries with strong RTD systems have more to lose than small countries which might be elevated to a higher level – through mobility schemes, integration into excellence networks and the like. However, on the other hand, ERA is a very excellence- and size-oriented approach that might leave newcomers behind and put cohesion within RTD policy aside. The influence of CEEC countries on the development of the clash between excellence and cohesion needs concerted bargaining efforts by the accession countries. Here Hilger is rather pessimistic, since the step-by-step approach of accession will foster disparities and heterogeneity among the accession countries rather than enable a strong group effort of the CEEC. For the whole group as such, ERA might mean rather an impediment on their long way to catch up.

This line of reasoning is also followed by *Emmanuel Muller*, *Andrea Zenker*, and *Jean Alain Héraud* (Fraunhofer ISI /BETA, Strasbourg) in their discussion of the meaning of ERA for the development of European regions. They introduce the results of an EU study on the typology of innovation needs of regions¹ and conclude that ERA – as foreseen – might enforce the divergence of regions. Regions with a higher level of innovation needs might be pushed even further and RTD capacity in Europe might be even more concentrated, while regions on a somewhat lower level of RTD and innovation capability might struggle even more. Although the European Commission has tried to calm those worries (COM 2001b), Muller, Zenker and Héraud argue for a better awareness of the diversity of regional needs, and here they are in line with worries raised very early by the European Parliament (2000). One might add that this is not only a conflict between the European and the regional levels, since the nations with strong and weak regions alike face the challenge of taking on regional chances without aggravating disparities within their countries.

3.3 An institutional perspective

While the first two perspectives on ERA have stressed the classical multi-level dimension of European RTD, a third one can be taken by looking at potential implications of current and future European policies for specific institutional settings, two of which were discussed in detail. On the one hand, there are strong and stable institutional settings such as biotechnology clusters in Southern Germany. Attracting world class scientists and empowered by appropriate financial institutions, regulations and infrastructures, those clusters seem to be in a position to ignore policy change at European level almost completely (*Robert Kaiser*, University of Munich). On the contrary, *Hans-Willy Hohn* (Max Planck Institute for Social Research, Cologne) shows a possible reciprocal influence of European policy-making and deeply embedded national institutions. After decades of inertia and stalemate, it now seems likely that the collective research approach offered by the German Association for Industrial Research (*Arbeitsgemeinschaft für Industrielle Forschung, AiF*) will be mirrored by a European collective research scheme, while the AiF itself has been changing its own institutional setting and purpose quite a bit, having adapted more and more to a service institution mainly in order to assist their member enterprises and institutes in their efforts to participate at the European level.

3.4 A sectoral perspective

A last aspect in trying to make sense of ERA is to understand that this approach might mean different things in different sectors. Harmonisation of national policies, variable geometry and large networks of excellence might be instruments that make sense in one sector but might meet much resistance in some other sector. At the conference, this dimension could not be analysed in a comparative way, as certainly should be the case in future analysis. However, one sector – biotechnology – was looked at as an example. *Ulrich Dolata* (University of Bremen) and *Gabriele Abels* (University of Bielefeld) demonstrated what a difference the peculiarities of each issue area make for the potential impact of European schemes. It was argued that while the Biotech sector is highly dynamic and potentially could need transnational support

schemes, especially in the competition against the US market, there are two reasons why European RTD support, and especially ERA, might not have the impact expected: the sector consists of a multitude of very small players for whom the European scale and the instruments foreseen might be too big, and second, the high and still not clearly foreseeable economic potential of this sector has led to a national competition within Europe that still fully defines the rules of the game. For this sector, ERA might come too early, or might be the wrong approach entirely. In addition, the presentation by Abels showed very clearly that ERA would mean more than new instruments, it would alter the mode of governance in European biotechnology policy, and thus could be interpreted as a cornerstone of the Commission's attempt to re-design supranational governance across many policy fields.

4 A new thinking, at least

At this stage, it is far from clear what changes ERA will bring to the European governance system in RTD policy-making. While the negotiations on the Sixth Framework Programme have downgraded the budget originally foreseen for the new approaches and devoted the bulk of the budget to the traditional research projects, a recent discussion paper of the European Commission clarifies the mode of operation of the “new instruments” and thus strengthens the willingness to follow a new path in addition (COM 2002).

However, while the practical impact is yet unclear, one consequence of the ERA debate is obvious. ERA has integrated the discourse on European RTD policy in a new way, it has triggered off a new mode of thinking. National policy-makers have started to reflect more broadly about the role their policy can play in the future and how national and European policy can complement one another more effectively. For example, the benchmarking effort that has accompanied the ERA debate has led to a commonly accepted knowledge base for RTD policy in Europe which is needed for ERA to function. By integrating high level national administrators in the benchmarking process, the first step towards harmonisation has been taken already, and the pre-conditions for bundling national policies are laid. Even if resistance is still there and money

for the new instruments is less than hoped for from the Commission, it is very likely that the ERA discussion has sown the seeds for new dynamics.

The conference proceedings with the main presentations will be published in Autumn this year: Edler, J; Kuhlmann, S.; Behrens, M. (Eds.): *The Changing Governance of European Research and Technology Policy – About the Potential Impact of the “European Research Area” Initiative.* (Edward Elgar) 2002

Note

3) See the “RETINE” – REgional Typology of Innovation NEeds project, <http://www.isi.fhg.de/ir>

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Symposium „Allgemeine Technologie – Vergangenheit und Gegenwart“

Berlin, 12. Oktober 2001

Tagungsbericht von Gerhard Banse, ITAS, und Ernst Otto Reher, Leibnitz-Sozietät

Am 12. Oktober 2001 führte die Leibniz-Sozietät e.V. gemeinsam mit dem Institut für Technikfolgenabschätzung und Systemanalyse (ITAS) des Forschungszentrums Karlsruhe GmbH Technik und Umwelt das Symposium „Allgemeine Technologie – Vergangenheit und Gegenwart“ durch. Hintergrund waren die Bemühungen der Leibniz-Sozietät, Forschungen zur Allgemeinen Technologie zu einem langfristigen interdisziplinären Vorhaben werden zu lassen. Die Leibniz-Sozietät mit Sitz in Berlin – begründet im Jahre 1700 als Brandenburgische Sozietät der Wissenschaften – ist eine Vereinigung von Natur-, Geistes- und Sozialwissenschaftlern, die vor allem durch die interdisziplinäre Erörterung aktueller Grundprobleme von Wissenschaft und Gesellschaft einen angemessenen Beitrag zum geistigen Leben unserer Zeit leistet.

In der zweiten Hälfte des achtzehnten Jahrhunderts wurde durch den an der Göttinger Universität tätigen Professor für „Weltweisheit und Ökonomie Johann Beckmann (1739-1811) der Begriff der Technologie erstmals in unserem heutigen Verständnis geprägt. Voraus gingen eine Bestandsaufnahme und eine erste Systematisierung vorhandener Gewerke. Eine Schlussfolgerung der Arbeiten Beckmanns war, dass es Gemeinsamkeiten aller Gewerke gebe, die zur Herausbildung der Allgemeinen Technologie führten. „Geburtsurkunde“ einer Allgemeinen Technologie ist der „Entwurf der Allgemeinen Technologie“ von Beckmann aus dem Jahre 1806. In dieser kleinen Abhandlung geht es ihm um mehr als eine allein vergleichende Systematisierung der für die Realisierung (technischer) Zwecke nutzbaren technisch-technologischen Mittel, denn Allgemeine Technologie soll „die gemeinschaftlichen und besondern Absichten der ... Arbeiten und Mittel anzeigen, die Gründe erklären, worauf sie beruhen, und sonst noch dasjenige kurz lehren, was zum Verständniß und zur Beurtheilung der einzelnen Mittel, und zu