SECURING THE FUTURE OF REGIONAL SCIENCE

CONDITIONS FOR A CORE DISCIPLINE 1)

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I. THE ECONOMIC CRISIS IS ALSO THE CRISIS OF ECONOMIC SCIENCE, BUT NOT OF REGIONAL SCIENCE

Economic theories seem useless in front of the crisis. Economists don't give solutions others than liberalism or keynesianism… where is the 21st century Keynes? Since 2007 it is the time of "the misery of economic thought" (Paul Jorion, 2012).

The reasons include:

- an economic knowledge sliced into various expertise domains. Nobody has a global view of the entire economic and social system
- the transformation of the field into a mathematical exercise, forgetting the human aspects of societies and trying to invent numbers. There is no magical number, even for public debt
- the ivory tower of many researchers, living in the black and white technocratic world.

II. FOR REGIONAL SCIENCE THE WORLD ECONOMIC CRISIS IS NOT NEW

Since the 1990's many regional scientists were able to measure the end of the regional convergence: after 20 years of growth, Southern Europe, Western China, Southern USA are declining again. Their regional growth is slower than the metropolitan growth of Northern Europe, Eastern China, the Northeastern USA… and the gap in between the regions is giving rise to the social and economic crisis. This was predicted by regional scientists before the crisis.

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Regional scientists, with their indisciplinary approaches, including geography, social and political sciences, have a broad scope of view and can measure the regional evolutions in space and time. Many RSAI round tables, and many papers were dealing with the subject. Their know-how is neither sliced nor only theoretical. Regional science is an applied field, using qualitative and quantitative methods. It "is capable of usefully addressing the real world and its complex set of social, economic and environmental problems" (Bailly, Coffey, 1994, p.3).

Regional scientists have proposed since 2000 (before the crisis) ways of reducing the gap between regions: milieu theory, clusters, innovations, to name three items. But few of the proposals were heard and used in part due to the lack of regional science's reputation.

III. HOW TO IMPROVE REGIONAL SCIENCE REPUTATION?

Regional science has grown a great deal since its first years in the 1950s. Sections and associations such as the French Language Association, the Western Regional Science Association, the Japan Section of the RSAI, to name just three, have grown in size and stature and a new constitution for the Regional Science Association International established a basis for a worldwide network of associations dedicated to supporting the expansion and maintenance of a worldwide network of regional scientists. The RSAI now has a well-defined system of super-regional organizations in the Americans, in the Pacific Realm, in Europe and even into Africa. There is a world regional science conference, a North American conference, a Pacific conference, a European conference, and recently an "Americas conference" has emerged. The work of establishing this world network is certainly not done but with the new constitution and now with universal membership the broad brush strokes are clearly visible and systems management tasks are more easily seen than they were in the second half of the 20th Century.

What are needed now are new and different initiatives to assure that regional science improves its standing in the largely academic worlds of scientific scholarship and expands its influence into new realms. If regional science is to grow and expand its reach it needs to expand its influence into the now underserved areas of business, governmental organizations, and government sponsored enterprises and non-governmental organizations.

Meeting the challenges of these new initiatives will not be easy it will involve understanding sometimes foreign corporate cultures, new approaches to articulating scientific outcomes, different reward systems, and new vocabularies. But if regional science expects to be nimble in the evolving landscape of scientific research and to reach a point where sustainability is assured it must meet a variety of challenges.

IV. THREE PERIODS IN REGIONAL SCIENCE

Regional science received a first boost after the Second World War (Figure 1: Three periods in regional science) (Bailly, Gibson, 2004). In Asia, Europe and North America,

spatial scientists were in demand as planners and managers of the war effort and of the post war reconstruction efforts.

The 1950s, 60s and 70s were good years for regional science. But in the 1980s "thinking regionally" was replaced by "thinking globally" and spatial planning was succeeded by liberalism. In the years since 1980 we have witnessed the closure of regional science's flagship department at Penn, the closure of the spatial economics unit at Rotterdam, and the closure of some departments friendly to regional science.

The new Millennium is evolving in a different way: "thinking sustainably" and "continental cooperation" are main themes well appreciated by regional science as new approaches open ways for more public and private funding and the need for new programs..

Our next 14 proposals are following this trend.

1950	**1980**	**2010**
Post war regional adjustments	Globalisation	Environmental and Social Sustainability
"Thinking regionally" "Location matters" "Cold war programmes"	"Thinking globally" "Flexible space" "Liberalism"	"Thinking sustainable" "Continental cooperation" "Financial power"
New programme in regional science Public funding	Suppression of programmes in regional science Less public funding	New programmes and new approaches More public and private funding

Fig. 1. Three periods for regional science (Bailly, Gibson, 2004, p.131).

V. ENHANCING THE STATUS OF REGIONAL SCIENCE AS A CORE DISCIPLINE

Regional Science is certainly a well-established feature on the intellectual landscapes of the Americas, Europe, and Asia and is emerging in Africa and elsewhere. The future of regional science is bright but it could be even brighter if regional science were to accomplish several additional steps or milestones. None of these will be easily achieved but all can be managed by the existing associations and sections and in some cases even regional science programmes in universities.

1. DEPARTMENTAL STATUS FOR REGIONAL SCIENCE

Regional science is certainly a respected field of study but it falls short as a core discipline in colleges and universities. It also falls short when it comes to wide-spread public recognition. There are many attributes of a core discipline but if regional science were to achieve departmental status at just a few highly regarded universities in Europe, Asia, or North America this alone would go a long way toward making regional science a recognized brand. At present there are individuals, courses, and programmes but not,

typically, departments. Having regional science achieve departmental status would be a major achievement.

2. LARGE INTRODUCTORY CLASSES IN REGIONAL SCIENCE

Classes in regional science at any level will help to promote the regional science brand but perhaps especially helpful are classes for year one or year two students. Introductory classes often reach large numbers of students but help recruit students for more advanced courses including those used by more senior students including graduate students.

3. USE REGIONAL SCIENCE IN JOB DESCRIPTIONS

Use of the term regional science increases awareness of the field. It is likely that the term regional science is not part of most vocabularies. Increased use of the term when appropriate in job descriptions for positions in academic institutions, government agencies, private firms, non-governmental organizations, and government sponsored enterprises will build awareness and in some cases increases understanding of exactly what it is that regional scientists do.

4. ENCOURAGE REGIONAL SCIENTISTS TO "SELF-IDENTIFY"

Encourage colleagues to appropriately use the term "regional scientist" when describing their positions and capabilities. Create awareness among those conducting both curiosity driven research and client driven research that it is helpful to be identified as a regional scientist. The term "regional science" (or scientist) can be used either alone or in conjunction with a more traditional identifier, e.g. "economist and regional scientist," "geographer and regional scientist," "planner and regional scientist," etc.

5. PROMOTE BROAD-BASED PARTICIPATION IN REGIONAL SCIENCE CONFERENCES

Encourage students, academics, and other professionals who are researching and writing on regional science topics and who are using regional science approaches to use regional science conferences as an outlet for their work and regional science publications as outlets for their published research. Similarly promote regional science conferences among those who are, at least at the moment, consumers of research but not producers.

6. RECOGNIZE THAT REGIONAL SCIENCE CAREERS OUTSIDE OF THE ACADEMY CAN BE REWARDING

Encourage students working in the field of regional science to seek non-academic employment opportunities to expand the job base. Once students are employed business, government, and in NGOs and GSEs encourage them to stay active in the intellectual life of regional science by attending conferences as both participants and as observers.

7. SUPPORT REGIONAL SCIENCE AS BEING BOTH CURIOSITY DRIVEN AND CLIENT DRIVEN

Regional science can contribute to the broad goals of a general education and it can lead to careers that emphasize more focused perspectives and skill sets. It is for regional scientists to be able to deal with territorial planning and all type of jobs linked to regional sustainable development and societal environmental preservation.

8. PROVIDE "PRESS PACKETS" TO EXPLAIN CONFERENCE PAPERS AND PUBLICATIONS TO THE PUBLIC

Press packets or press releases might focus on research that promises to have general or broad public appeal or to work by regional scientists that promises to be especially important for positive outcomes for government, business, or other sectors. In any case it is important for regional science to reach more than just an "insider" audience.

9. BE EXPLICIT WHEN STATING TO SCIENTISTS THE ROI THAT COMES FROM CONFERENCE PARTICIPATION

What is ROI? It is shorthand for return on investment. We guess that most participants in regional science conferences, seminars and even publications do not weigh the costs and benefits of participation in a mature and comprehensive way. Further, many seem to consider such participation to be a "one off-event". Ideally, participants will think about participation as part of a life-long plan for "continuous intellectual improvement". In the short term benefits might be improved conference revenue for organizers and the opportunity to bring the so-called demonstration effect into play when participants see that participation brings not only intellectual benefits but maybe even some social benefits and opportunities for collaboration. In the longer term organizations have improved opportunities to engage in "relationship marketing" with an established participant base.

10. EMPLOYERS ALSO NEED TO BE EXPLICITLY TOLD ABOUT CONFERENCE PARTICIPATION ROI

It is essential that the value added that comes with participation in regional science conferences and publications is made clear to those in public and private sector leadership positions who employ regional scientists. There is a cost to firms and agencies when employees participate in conferences and when employees' budget "billable time" to attending conferences, to preparing conference publications, and when time is devoted to preparing papers for publication. Unless scientists are using their own time (including vacation time) this can be an issue. Many if not most employers require that time used for conferences and publications either be billed to a client or, perhaps, to an in-house professional development account. Regional science associations need to be prepared to help scientists justify their participation in ways that support the notion that the employer is making a critical investment to the business of human capitol building.

The notion of costs and returns has always been an important one but perhaps in these days of declining research support and travel budgets it is even more critical. In the face of declining "perks" it is increasingly necessary that there are tangible benefits or "business reasons" tied to conferences and similar activities. Regional science organizations can help support participants by emphasizing value added and ROI in

promotional materials and in conference programmes and other similar publications. Similarly the tone of announcements and publications should emphasize the serious side of the undertaking.

In short, regional scientist in positions of association leadership need to think of ways of "giving cover" to those in industry and government who need a clear "business reason" for participation in conferences or for preparing scientific publications.

11. REGIONAL SCIENCE NEEDS A CORPORATE CULTURE THAT IS WELCOMING TO MULTIPLE CONSTITUENCIES

The culture of regional science is aimed at university and college based scientists and this is certainly appropriate. But our culture needs to evolve to be more inclusive and this means explicitly meeting the need of those in business, government, and the NGO and GSE sectors.

12. RENEW THE FOCUS ON THE TEACHING OF REGIONAL SCIENCE

Over the years regional science conferences have hosted sessions on the teaching of regional science. However, in recent years such sessions have been few and far between. Initiatives of this sort need to be revived and expanded. The goal of expanding the foot-print of regional science in universities and colleges is an important one but this will not happen until regional science grows as both an undergraduate and a graduate field. If regional science expects to be a core discipline it needs to be an essential part of the undergraduate curriculum. It could be argued that an expanded number of graduates would build awareness of the value of regional science as well as increasing the pool of perspective graduate students seeking advanced training. In any case the business of creating an undergraduate curriculum in a subject that is now a largely graduate level field is something that can be nurtured by regional science associations and conferences.

13. REGIONAL SCIENCE ORGANIZATIONS SHOULD EXPAND THEIR OFFERINGS

Regional science associations should explore the efficacy of accommodating a variety of appropriate activities now undertaken by governmental organizations, business firms, NGOs, and GSEs. In doing this the associations would be creating a revenue stream and they would be clearly establishing the value of the regional science community to employers of regional scientists. Scientific associations provide cache and respectability beyond that which these organizations can provide for themselves.

Corporations and government organizations routinely organize and conduct training sessions and corporate or agency retreats and seminars. There might be occasions when these activities have substantial regional science content and could be held in conjunction with a regional science conference. Such activities might even be organized by conference managers on a contract basis to provide a revenue stream for the organization and to assure that content and presenters represent state of the art approaches to regional science issues. This sort of mixing of functions could also allow those with backgrounds in regional science to use one trip and one conference to participate in the general conference agenda and in specialized training and discussions appropriate to their employment.

14. EXPAND THE FOCUS OF REGIONAL SCIENCE

From the beginning regional science has had an economic focus. It is time to follow Walter Isard's lead and continue to expand regional science into areas that are the focus of other fields including sociology and environmental science. Fields such as these will certainly benefit from the perspectives offered by regional science approaches. There will also be societal benefits as regional science tackles a wide-ranging selection of contemporary problems such as environmental protection, new energy producing technologies, sustainable development, and spatial variation in quality of life measures. By moving into areas of these sorts regional science will further establish itself as a field dedicated to finding answers to questions that contributed to a better quality of life.

VI IMPLEMENTATION

We would like to see all 14 of our action steps implemented. Leadership for implementation should logically come from regional science sections and associations. They are the organizations with a comprehensive mandate to "grow" regional science. They are also the organizations with the ability to cut across firm, agency and geographical boundaries to put initiatives in place that will promote the growth and development of regional science. Associations are also well positioned to negotiate the partnerships that are necessary for the advancement of regional science.

In one sense sections and associations represent the supply side of the supply and demand equation. Government agencies, private firms, NGOs, and GSEs, effectively represent the demand side.

VII CONCLUSIONS AND RECOMMENDATIONS

When compared to the core disciplines of the social and economic sciences regional science is relatively new and still "emerging." We do, however, think that regional science has the potential to evolve to become a core discipline with powerful potential to more fully develop its theoretical foundations and to make substantial contributions to the solutions of pressing socioeconomic problems.

With this in mind we offer five general recommendations:

1. DESIGN INSTRUCTIONAL COURSES.

The proliferation of courses at the undergraduate and graduate levels will broaden awareness of the regional science "brand" and will build appreciation of regional science a useful applied field.

2. MAKE RECOGNITION OF REGIONAL SCIENCE EXPLICIT.

It is essential to make recognition of regional science and the work of regional scientists an explicit, not just implicit, part of the instructional package. Regional science needs to be recognized for its leadership in the search for solutions to significant research

problems.

3.DEVELOP NETWORKS.

By strengthening existing networks and building new ones regional scientists will have expanded access to, and more regular contact with, professional planners, government agencies, businesses, consultancies and the private research sector. Improved access to the research staff and management and administration of such organizations and agencies should result in expanded opportunities for regional scientists.

4. CREATE AN ACADEMIC CULTURE THAT VALUES EXTRAMURAL FUNDING.

Curiosity driven research will always be valued but client driven research carries with it the fact that its value is more widely recognized. And it provides expanded opportunities for research scientists. The most sustainable academic enterprises are those which forge appropriate partnerships with government agencies, private firms, GSEs and GSOs.

5. BE AGGRESSIVE IN CULTIVATING THE MEDIA.

The media can encourage public awareness and recognition of the contributions of regional scientists to solving problems facing government, private firms, GSEs, and NGOs.

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ABSTRACT

Regional science is certainly a well-established feature on the intellectual landscapes of the Americas, Europe, and Asia and is emerging in Africa and elsewhere. The future of regional science is bright but could be even brighter if regional science were to accomplish several additional milestones. In this paper we present 14 items to improve the future of regional science and 5 recommendations.

KEYWORDS

Regional science, management of regional science, history of regional science, regional development, sustainable development.

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