

Enterprising Academics and the Knowledge Capital – towards PASCAL Universities for a Modern Renaissance (PUMR)

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INTRODUCTION

This chapter portrays an innovative approach from a consortium of universities who have developed new and highly effective ways of both knowledge sharing and actively working with external colleagues from, business, industry and civic society for knowledge cities. In particular, these universities harness global imagination and unlock the talents of all partners to co-identify, co-create and co-produce flourishing futures projects and processes, and real world impact.

Nearly a decade ago, Will Hutton, of the Work Foundation, proposed that Manchester in the UK, had all the attributes to become an 'Ideopolis' – a 21st Century Knowledge City with the capability, talent and facilities enabling it to flourish in the global knowledge economy. His idea was honed and developed into a working entity by a powerful team of senior Manchester leaders into what has become known as Manchester: Knowledge Capital – a name invented by the three CONTACT Universities of Greater Manchester and endorsed by the Deputy Prime Minister of the day, John Prescott (now Lord Prescott). The present author helped lead that development.

Key in this development, and in other Knowledge Capitals throughout the world, has been the role universities must play in driving necessary cultural change, and more relevant innovations fit-for-purpose, to enable sustainable and wealth creating modern futures. For in such Knowledge Cities, universities have begun to reach out to their partners more smartly than ever before, often in interesting and novel ways, in their attempts to play what they each see as their role in coping with today's global crises, major societal challenges and to help citizens. Most are becoming more enterprising and deeply engaging with their communities:

- Enterprising in the way they *develop leading edge opportunities*, with high academic values – becoming involved in solving real world issues and problems.
- Engaging with Strategic Partners who bring their own expertise and imagination to *co-create* with them > universities and their partners realise they can't do it separately if they want to develop innovations fit for the knowledge Economy.

As Garlick suggests (2010) 'there is no doubt that, after decades of indecisiveness in policy circles, there is a mood amongst Higher Education Institutions (HEIs) for an approach to knowledge creation and distributions that better reflects their purpose; this would be in the fashion that John Dewey, Ernest Boyer and others have aspired to for many years, but their views may now be more timely'. This perspective is very different to the dominant paradigm presently forced on academic institutions through neoliberal funding agencies. In many ways, "the university of today" has unfortunately become a 'Taylorist factory'. Garlick is also not sure that Burton Clarke's (2003) seminal work on the entrepreneurial university has helped things improve in terms of beneficial outreach by the way it seems to limit the university perspective. However, he does go on to propose that the approach suggested in the present paper truly 'enables a more enlightened and creative approach that connects HEIs to the big issues of the planet, connecting them properly with their communities, in order to build 'meaningful and ethical partnerships, and to see their students and staff as a hugely valuable tool for concerted action beyond publication and the curriculum, and still remain as economically viable as it would be under other less connected approaches'.

THE ROLE OF UNIVERSITIES

Not only are universities thinking differently about their role(s). Society increasingly expects the universities it funds to work with citizens and communities to enable them to flourish. Governments further believe this should occur through the creation of improvements in a knowledge economy that has huge economic, social and environmental problems; some see the universities as central to the development of all future forward looking and workable processes. In the past, in order to understand the complexities, uncertainties and often 'wickedness' of difficult problems, academics were able to retreat to their 'ivory towers' and develop 'private frames of reference' to enable theory building and high level discussion. No longer, academics now need, and maybe even demanded, to use their deep and rigorously acquired understandings for the common good. And they must also now do this by developing new ways of working and knowledge sharing that enable them to make a real difference in the real world through co-identifying worthy problems and co-designing solutions with external colleagues from business, industry, the civil and voluntary services and the community.

Nearly all universities say they are reaching out to all their local partners. However, sometime this rhetoric doesn't translate into actuality, implementation or real 'impact'. For as a recent key Innovation and Productivity Report (Abrue et al., 2009) reveals, the objectives of Industry and Academia are still often distinctly different:

- What industry *and the community* (my italics) want from academia are 'ideas and talent, rather than a cheap way of outsourcing R&D activities'. They want to meet the experts and to hear about what they are doing and then figure out how something that they learn may be of use to them. Firms value the direct assistance in problem solving, as well as access to skilled experts.
- Academics, on the other hand, still tend to pursue objectives from their own discipline with their studies 'underpinned by research-oriented rationales, rather than by the desire to commercialise technology' or create impact or improvement to the real world; their primary outputs are typically seen as knowledge, learning, trained minds, and some consultancy. For the most part, people in academic institutions seek to follow a career in academia.

Nevertheless, in an attempt to form better relationships with external partners, universities are beginning to engage in a diversity of ways which typically reflect local contexts and circumstances and the major academic thrusts each university holds dear. Furthermore, University 'Reach-out' or outreach activity, as it is often called, is beginning to look different from traditional academic working, with the added contributions of partners combining their skills, so the sum of the parts is worth more than the parts taken individually.

THE GROWING DIVERSITY OF UNIVERSITY REACH OUT IN KNOWLEDGE CITIES – EXAMPLE OF BEST PRACTICE ENGAGEMENT THROUGH THE WORLD

In terms of outreach to business and the community, the 'land grant' universities in the USA, through the way they were founded, have always had a strong relationship with local 'communities' in the richest sense of that word. For instance, Universities like Michigan State (MSU) now act as a beacon to the rest of the world of the kinds of best practices in developing, sharing and applying knowledge for the public good. So, since its inception in 1855, and then its renaming to Michigan State in 1964, MSU has increased its connections with south-eastern Michigan, putting major investment into community partnerships designed to help create the human and social capital necessary to ensure transformation of the region. By 2008, MSU's aim had become to be an exemplary "**engaged university**", transforming and strengthening outreach partnerships to address key local state needs and developing broadly applicable models; with its academics' outreach activities, to external organizations and communities alike, being for 'reciprocal learning' that increased both the external partners' capacity to address issues and the academic staff's capacity to produce scholarship that better reflects the realities outside the laboratory or the library. Their recent Guidance Handbook (Fitzgerald, H. E., Burack, C., & Seifer, S., 2011) stands testimony to how much they have developed and shared workable and worthy ideas and processes – such guidance will undoubtedly improve the quality of all engagements by those University academics who wish to work actively with their local communities in Knowledge Cities.

Arizona State University (ASU describes itself as being a new Model American University with eight design aspirations appearing in its guidebook as key transformations relating to:

- Leveraging Our Place
- Transforming Society
- Valuing Entrepreneurship
- Conducting Use-Inspired Research
- Enabling Student Success
- Fusing Intellectual Disciplines
- Being Socially Embedded
- Engaging Globally

ASU has lots to aspire to, but it is truly transformational in the way it is leading its own engagement change in the USA; universities in Knowledge Cities would learn much by adopting ASU's key transformational areas for themselves.

In Canada, the University of Victoria in British Columbia has also had a clear focus toward the social, cultural and economic advancement of the communities it serves close to home and around the world runs deep. It tries to build strong partnerships with community organizations and actively engaging citizens from all walks of life is fundamental to their approach. Its *community services* are a key component in its type of engagement; these take many forms, from joint research projects or educational programs that address community needs and supplying expert speakers to schools, seniors groups and community organizations, to partnering with businesses to explore the commercial potential of the latest campus discoveries and applying student knowledge and energy to organizational challenges.

In a similar, but more collective vein, the Association of Commonwealth Universities (Coldstream, 2003) initiated a debate among its 500 members which led to the major conclusion that 'engagement should be a core value for the university' (a phrase later expanded in other papers to read '**engagement with wider society as a core value....**'). So even as recently as 2003, this was still 'juxtaposed to the stance of traditional universities as being 'ivory towered, where aloofness was still 'defended as a necessary condition both of undisturbed contemplation and of disinterested objectivity of judgment'. Just one result of this, alongside growing interest in Australian outreach, was the setting up of AUCEA – the Australian Universities Community Engagement Alliance – with its strong endorsement from 34 Australian universities at least, of profound '**engagements**', *beyond the trivial*, with external stakeholders outside academe, for mutual benefit.

Over the years AUCEA (Garlick, S, and Langworthy, A., 2009) has developed powerful ways and means of engaged working with the community, benchmarking progress to ensure universities from this Australian consortium sensitively, caringly and effectively engage with communities to the greatest effect and for the highest impact. It defines the following principles as applying to the Engaged University:

- University community engagement is based upon a mutually beneficial exchange of knowledge and expertise between universities and communities;
- The university produces graduates who are ethical and engaged citizens;
- The university engages with its communities to create a more accessible, outward reaching and inclusive society;
- The university identifies its communities by acknowledging community values, culture, knowledge and skills, and works with those communities to develop a mutually beneficial agenda;
- Engaged research is designed, managed and disseminated as a partnership that addresses both academic and community priorities;
- Engaged learning and teaching programs respond to individual and community needs and opportunities and links to specific learning goals and experiences for students. Programs are designed and managed in partnership with communities, and are socially inclusive and globally and locally relevant;

- Community engagement is embedded in the governance, operations, budget, curricula, plans, policies and life of the university;
- Engaged universities articulate their mission, culture and values for the community, and regularly reflect on these in the context of community conditions and partnerships;
- The university and the community work together to monitor partnerships, measure impacts, evaluate outcomes, and make improvements to their shared activities.

Turning to a more business focused engagement, NESTA (Stewart, 2009) use the not dissimilar term, of '**connected university**' for those British universities that are driving for innovative growth in the UK business economy. NESTA believes that such universities enable business, industry and the community to flourish, especially economically, by putting the following at the heart of its strategy:

- Recognition of the importance of building strategic partnerships with local firms, nurturing local clusters, creating national and international connections;
- The recruitment, development and promotion of intermediaries or 'boundary spanners' who build active and intelligent links between public and private sectors through a deep knowledge and experience of both partners;
- Monitoring of the benefits of university-business-industry interactions and using key performance measures to improve their effectiveness.

Continuing with this more business focus, Professor Tim Wilson (2009), the Vice Chancellor of University of Hertfordshire believes his university is in the vanguard of a new type of emerging university – those that are business-like and business-facing. As a leading '**business-facing university**' in the UK, Hertfordshire is focused on developing new and creative approaches to learning, teaching and research with a commitment to adding value to employers, enterprise and regional, national and international economies. According to Wilson, 'it is an ambitious and entrepreneurial university with an international vision, putting students at the heart of what we do. The university encourages a constant interchange between businesses, academics and students. Many university staff members spend a proportion of their time working in industry, running their own businesses, keeping their knowledge up to date and help to develop students' business skills. Hertfordshire has a wide range of facilities, services and skills available for industry and its proven expertise and commitment means that, whatever they are looking for, employers know it will deliver. For instance, they are the only university in the UK to have acquired its local business support agency - Exemplas. Exemplas is the primary mechanism for identifying and tapping into latent demand for our products and services, and works to provide personnel and skills solutions to business.

Moving the diversity discussion on, in another example of engagement, John Goddard (September, 2009) argues more generally for 'all public-funded universities in the UK to again have a civic duty to engage with wider society on the local, national and global. He is similarly keen for this to be done in a manner which links the social to the economic spheres'. He believes that in the context of the severe recession, global warming, aging populations and major social challenges right across the globe, we need to re-invent the '**civic university**' that served us so well in its earlier manifestations. Indeed, citing his own university – Newcastle – as an exemplar, Goddard believes that 'globally competitive and locally engaged civic universities can contribute to attracting inward investing companies to specific locations, providing local business with world wide connections and attracting the mobile elite to an area thereby adding to its cultural diversity and pool of entrepreneurial talent'.

The new Aalto University goes further by developing a new forward looking 'community innovation agenda'. It aims to channel academic knowledge to create innovative solutions helping to tackle societal challenges. An international Aalto Camp for Societal Innovation (ACSI) arranged in the summer of 2010 piloted a concept that methodologically integrates research, education and innovation activities to solve concrete problems on social issues. The camp served as a stepping stone for creating a global networking culture that links operators at the forefront of the development to innovative collaboration and operated in a multi-disciplinary, communal and dialogue-oriented way. The participants collaborated in teams

supported by a steering process and material aid to help promote their selected programmes. They tackled six concrete problems and challenges chosen from Helsinki and other nearby municipalities. Teams got to know these challenges *on location* during the camp, building on their preparation process before they arrive and leading to the follow-through after the camp. The solutions were showcased in an exhibition on the last day of the camp. To keep in touch with progress on this exciting development please refer to www.ACSI2010.com

Plymouth (Purcell, 2009) - another British University - aims to become **the enterprise university**. Like Hertfordshire, it is also truly "business-engaging", delivering outstanding economic, social and cultural benefits from its intellectual capital to its region; like Newcastle it has 'reinvented the civic university' for how it sees the 21st century; like Aalto it has a strong societal innovation theme. However, it goes further than all these by striving to be enterprising in everything it does. To Professor Wendy Purcell, its Vice Chancellor, Enterprise has a very clear definition, meaning a "boldness or readiness in undertaking; adventurous spirit; ingenuity" and she is working to make her university 'pivotal in a city acknowledged as the enterprise capital of the south west of England. This is based on the firm belief that

A university must be at the heart of its community and can drive economic, social and environmental change. A university does this through the creation of new knowledge, an innovative approach to partnership working and a group of staff and students that act as a power for positive change.

Plymouth has set up the policies to enable this vision to occur and is presently implementing university wide processes to enable the appropriate external impact.

Such an approach formed the basis of my own university's – Salford's – attempt at a more encompassing innovative engagement with business and the community as their third strand of all its university activity. However, Salford has also now gone further than many others, and it not only engages as well as it can, it has now conceived of making '**academic enterprise**' an overarching principle to all its outreach relationships where teaching & learning, research and innovation and engagement, together seek to '*develop academic opportunities beyond means currently employed with business and community to the highest academic standards and for the mutual benefit of the university and its external partners*' (Powell, 2008, 2009 and 2011 a & b and Hall, 2010). It has also developed its own benchmarking tool, UPBEAT now used by many other universities, to coach academics on the leadership and development of creative teams capable of successful collaborative partnerships with a range of external partners.

As a finale to this Reach-out diversity discussion, I want to draw your attention the Matthews, Garlick and Smith's (2009) proposal to develop an 'ecoversity' approach with a strong focus towards sustainability. These Australian authors ideas of build on earlier notions of engagement, connectiveness, academic enterprise, civic responsibility, business focus and enterprise, but go further in taking a more ethical stance and focusing their attention on using all these different externally facing academic skills to ensure the world meets its 'triple bottom line' obligations, with respect to social, environmental and economic issues.

What is perfectly clear from all these external engagement developments and aspirations, are that many universities, and especially those working in Knowledge Cities, now see themselves at the heart of their city region's growth and want to make a real difference in the real world, thereby having a real impact and real improvements for their citizens. While not a complete list of the diversity, it is hoped that it gives a flavor of what most global University Reach-out aspires towards; most of the examples are presently from the Western World, however, other examples of best practice would willingly be received by the author, especially as short cases to complete his understanding, j.a.powell@salford.ac.uk).

TOWARDS A UNIFYING, WORKABLE AND CREATIVE ENGAGEMENTS FIT-FOR-GLOBAL-PURPOSE – UNIVERSITIES FOR A MODERN RENAISSANCE

I applaud all the above mentioned approaches, especially the last one. For if we fail to achieve a truly sustainable world then we are all doomed. Universities have the capabilities, the skills, the facilities and the 'know how' to make the changes to make a truly sustainable difference. As Matthews, Garlick and Smith (2009) so rightly say, Universities may be one of the few societal organizations who can provide the sort of "unique innovation structure and

relative independence for leading the way towards sustainable and creative futures based on engaged knowledge generation, ethical and moral principles and enterprising action. This is an increasingly rare capability in an 'institutionally thick', self-regulated, neoliberal economy and society where entity-based managerialism and risk aversion predominate and institutional discussion invariably centres on monetary cost and profit rather than wider social and environmental benefit".

However, for the future, and especially for Knowledge City collaborations, I would wish all existing University engagements to go further than this by taking a more proactive, interactive and highly integrating approach. This requires one last major component to the equation for success – 'how can universities engage with external partners in truly co-creating ways to ensure beauty, elegance and joy in a socially inclusive and wealth creating ways? In other words, I believe universities should 'not to do it for their citizens, businesses and communities, but rather *collectively with them* in 'co-creation' and 'co-production'. Fortunately, a new consortium of universities agree with this notion and have begun to strive for what they call a 'Modern Renaissance' – they are true collaborators, who use increasingly systemic explorations of the world problems, leading to outputs and outcomes which create socially inclusive improvement of real impact.

These resulting idea of 'Universities for Modern Renaissance' (UMR) developed as a result of discussions by an European Universities Association consortium, who tried to conceptualize their unique ways of working with local businesses and the communities in creative and constructive ways (EUA, 1996, Powell et al, 2006 and Powell and Wainwright 2007). Based on their own case studies, undertaken to understand their good UMR practices, the consortium realized it was the richness of their activities, the kind of foresight they used, their co-creation and co-production with partners and the resulting innovation that made the real difference. Other words previously used to describe universities like themselves - words mentioned in the earlier section of this paper such as engaged, civic or regeneration, or phrases like community enterprise - did not do justice to their creative, dynamic and co-creating activities. Rather, 'Universities for a Modern Renaissance' succinctly expressed their pro-active, progressive, collaborative and developmental ways in which they engaged with business and the community; to they sought to define what UMR actually stood for (Powell and Wainwright, 2009).

The PASCAL International Observatory for *place management, social capital and learning regions* has recently taken up this UMR idea, developed its own definition and made it its future looking approach; its aim is to 'put new life, motivation and interest into its own developments for, and with, its University own global members'. According to Bengtsson (2010), PASCAL's Chairman, the 'PASCAL Universities for a Modern Renaissance' (PUMR) program is that 'something that has been missing in all outreach of *engaged universities* world wide and it is a concept which rightly points to something deep that is presently happening in our society'. PUMR clearly recognizes the needs and demands expressed by the aforementioned Coldstream, NESTA, Matthews, Garlick, Smith, Powell, Wilson, Purcell and Goddard, by encompass all their underlying principles. However, it goes one step further, by seeking to work with others in society to '*co-identify real problems worth of collective solution, the co-creation of solutions systemically fit-for-purpose in the global knowledge economy, the co-production of those solutions and their stage management into the real world, and further in ensuring the continuous improvement of all such solution to reach more people with more constructive effect*'.

PUMR is a developmental program, now driven by PASCAL, which is attempting to empower a region, a city, a town or a village both to recognize the need for new knowledge and skills coming from its universities and also to provide citizens and communities with a higher 'buying power' to acquire the new and relevant knowledge and research at the leading edge. Through its developing academic support program, PASCAL provides access to different aspect and delivery from universities worldwide so that the regions could shop around to find the knowledge needed for different situations. In the common parlance for British universities this could lead to a real transfer of the 'third mission driver' from the University to the region, where the regions could define the kind of university they would like to have.

Summarised below are the key factors that PASCAL has borne in mind when developing the PUMR concept. They have been developed by PASCAL through a series in-depth working

discussions, both virtually and physically, at its regular meetings and with key interested universities. These factor spell out the enterprise partnerships demanded in Universities who want to work constructively and creatively with external partners in Knowledge Cities – from business, industry, the civil and voluntary services, the community and society at large. In short they demand

- Forming meaningful, wealth creating, sustainable and socially inclusive partnerships between academic on the one hand and industry, business, the civil and voluntary services and the community on the other;
- Enabling the co-identification of 'real problems for solutions', increasingly fit for purpose for the knowledge economy from as broad a range of stakeholders as is possible;
- Searching for academic opportunities beyond means currently employed with business and community to the highest academic standards and for the mutual benefit of the university and its external partners;
- Unlocking the talents of all citizens working together with their university partners in co-creation, co-design and co-production;
- Developing beyond the traditional academic (critical, scholarly, research and science based) roles into 'action enabling' developments for the 'greater good' which deliver real world improvements;
- Requiring sharing of different kinds of knowledge and 'know-how', in mutually useful ways, by forming relevant strategic alliances;
- Making available professional and practice relevant education and problem based learning for future generations to ensure sustainability;
- Universities will adapt not from just giving information to the students in terms of 'tell and show', but will have to interact with them and act in other more conversational ways. The whole demography of Life Long Learning will be different;
- Developing 'practical wisdom' through creative and 'virtuous knowledge sharing' with local businesses, social groups and all citizens for mutual benefit;
- Focusing key components of university activities on Higher Academic Enterprise – sometimes called Reach-out, outreach or 'third stream', not separated from normal academic activities, but an integral part of them;
- Harnessing the imagination, reason and daring from all City Region talent, including the skills of the university itself, leading to improvements for all
- Helping all society to cost effectively meet the 'triple bottom line' with respect to environmental, economic and social concerns, while also enabling them to flourish, grow and be creative – the essence of the human condition.
- Reaching out world-wide - to develop deeper conversations with relevant stakeholders to enable developments fit for purpose in the global knowledge economy
- Helping build confidence and capability in all citizens (in business, industry, the civil and voluntary services, and the community) and developing more appropriate work life balance for the modern world

As a PUMR, PASCAL believes universities must not just be involved in knowledge production and creation of IP, but open themselves up to co-design and co-production to enable the Knowledge City or Region to cope with complexity, uncertainty and the challenges of all future problems.

The approach has clear and strong links with, and is underpinned by, system science, where academic researchers truly do try to relate their knowledge and 'know-how' to real problems, helping working businesses and communities who are unable to address difficult issues by themselves to do it better. The problems and issues they now have to consider are invariably complex, are often not easy to understand and may often be contextualized in a number of conflicting ways. So, as Erik Willan (2010) so rightly says, 'one of the key issues for PUMR type projects is that on the one hand "content is king", but on the other hand "context is kingdom". Unfortunately, 'much of traditional university research is often only uni-disciplinary and context free'; it is general in outlook and tries to be applicable to any case. But, the sort of 'wicked problems encountered in the real world (Rittel, 1997) and especially in Knowledge Cities, are multi-disciplinary in nature and require creative solution by trans-disciplinary teams. So, for instance, most regional problems are contextually founded and are richly systemic. As a result University projects in the region should be true partnerships in both the selection of the problem to be explored and the way it is tackled. Unfortunately, while they really now want to help local businesses and communities, most universities do not have good organizational processes or the right collaborative mechanisms to really engage in such issues in a deep and sustainable way. So, the PASCAL approach with respect to PUMR is to underpin its regional, and other constructive interactions, with real world issues, using a deeply systemic approach using the best principles of both systems and soft systems science. Furthermore, as in the 'Scottish Enlightenment, the nature of the PUMR engagements with all societies problems will be dynamic, fast-acting, highly conversational and innovative in their systemic outlook, and universities would deliberately seek creative ways of co-creative team-working with business, industry, the civil and voluntary services and the community.

So, in short a cultural shift is needed in order that peoples' "know how" banks – that which they remember to use in anger in their real world living - can be improved'. Here, PUMR engagement will be a two way conversation, not a one way broadcast, and is also both systematic and systemic. This improved conversation must be between all parties involved in developing an academic enterprise, including academics and their external partners. All must learn a new ways of talking **and listening**, new modes of conversation, having quality conversation understandable by all in society, but informed by high academic values. The discussions must still be profound, but properly coordinated to enable an appropriate discourse. So in the Modern Renaissance, PASCAL is looking to work towards setting up conversations where we can all work together to co-identify a worthy problem, understand the systemic nature of that problem, and then co-create and co-design solutions that are workable for those for whom the solutions are intended.

SHORT CASE EXAMPLES OF BEST PUMR PRACTICES

PASCAL has gained confidence in its PUMR approach from nearly 200 cases of best practice upon which it is based; these all show a common approach for successful university engagement with partners. All successful PUMR engagements seemed to be engendered from deep conversations with their partners in which team members need to step outside of their specific project and think reflectively about whether all their aims and objectives have been met. For full detail please go to <http://pumr.pascalobservatory.org>

The following short paragraphs show the essence and range of possible activities of those already striving to become PUMRs:

- the University of Victoria in British Columbia, Canada is engaging the '**Binnars**' of its City and also in Sao Paulo in powerful, cost effective and sustainable **Waste Management Developments** for the benefit of all;
- Using a sustainable 'Community Land Trust' development pioneered in the USA, Community Finance Solution, of Salford University, UK, has enabled a range of community groups to successfully develop and run a number of '**Community-directed Affordable Housing Schemes**' for disadvantaged citizens in the UK;

- Peoples Voice Media, a social enterprise working closely with two Greater Manchester Universities is coaching a thousand '**Community Reporters**' in a constructive development known as 'Reuters for the Community'; using sensible, sensitive and cost-effective social media networking this project could enable the sort of 'Media Conversation' the BBC is looking to promote in the UK when it moves to Manchester;
- The University of British Columbia is working with local citizens to empower them to 'do-it-yourself' in **retrofitting their homes to become carbon zero** and highly sustainable.
- The **UN Global Cities program** led by RMIT in Melbourne Australia, works across the world to ensure smart city futures enabling citizens and communities to gain confidence to flourish in the global knowledge economy;
- **The Aalto University's Camp for Social Innovation** is using the skills of University expertise through the world to work with citizens in Helsinki to empower them to help solve six major local problems in their city; key in this is to use 'Flip-video' technology linked to powerful social media networks to continuously improve prospective solutions;
- '**Contraception: the Board Game**' was developed by Barbara Asatorian-Hastings of Salford University, to effectively help young people learn about the correct use of contraception in a happy learning environment; this has cut down the number of unwanted pregnancies through the world and made its university inventor one of the top 'Women Inventors in Europe'
- **Digital City** is a concept developed by Janice Webster of Teesside University to put its city, Middlesbrough in the UK at the centre of the modern knowledge economy revolution.

CONCLUSION

According to Garlick (2010), 'the knowledge economy has so far 'failed to deliver imaginative real outcomes in the form of sustainable enterprises and employment with the result that many regions outside the largest Metropolitan Centres are suffering a loss of human capital through unemployment, underemployment, 'brain drain' and retirement. Universities are often presently a part of this problem, having been party to such so-called knowledge transfer mechanisms as business clusters, science parks, 'creative milieu', social capital, etc'. So, as John Tibbitt's (2010) recent explorations reveal, at the very least an 'engagement gap' exist between Universities and true city-regional needs. It is PASCAL's belief that its PUMR approach, building on the best practice of other Knowledge City engagements throughout the world, will make a real difference in enabling both PUMR universities and their knowledge cities flourish. It will do this by starting with the development of a better understanding of what 'knowledge city and 'knowledge regional' expectations are, and what universities might do to help their regions creatively and constructively?

PUMR could also lead to better ways of analyzing existing problems, especially wholistically and from a trans-disciplinary perspective, and to better understand what the 'engagement gap' really is. In discussing this issue further, Tibbitt (2010) was put in mind of 'much writing about social policy with attempts at trying to encourage collaboration between different services and the delivery of shared goals. So PUMRs must attempt to codify what the collaborative relationship might be and to specify different kinds of relationship from the mere formal information sharing at one end of the spectrum, right through to a more sophisticated conversational process, to ultimately a merger between organizations - where people share their objectives, accountabilities and joint action'. And Tibbitt (2010) also wondered whether PASCAL's PUMR approach could also 'develop the kind of successful thinking and engagement relationships there might be; we might also attempt to generate a better mapping of what could be the necessary engagement. I would personally support this stance, but go further, and agree with Garlick (2010) that the "regional development agenda needs to go beyond knowledge generation and transmission, becoming 'enterprising' *co-creation* (my words in italics). By 'enterprising' Garlick uses the term with the 'same characteristics of the key words of 'opportunity' and 'advantage' used by Sen (2009) with respect to the development of human capability'. Such an approach emphasises individual 'ambition' and 'opportunity', rather than institutionally defined, competency-oriented, and path dependency learning to meet specified commodity objectives.

The PUMR is a global attempt to go beyond simply reaching out to society. It is proposing

new ways of working and improved processes for the co-identification of problems felt worthy by society, and co-creation and co-design of sustainable solutions fit for the knowledge economy. Whatever they are called in future, society will increasingly demand University Reach-out where:

- University partnerships are socially inclusive in order to achieve sustainable success, working for the 'common good'. This focuses member universities on engaging all the communities within their regions, and on all the communities within their own colleges and universities, to work collaboratively with them, in co-creation, to help them transform their own lives and enable all categories of citizen to flourish.
- Regional engagements built on value through co-creation. Value comes from working together with partners to co-identify problems, co-design solutions, and then co-produce outcomes that address shared, important priority concerns.
- External engagement will co-create many different types of value. Even though today's political climate and economic circumstances may place greater emphasis on creating economic value, a truly modern regional renaissance needs to co-produce a more balanced approach based on co-producing many different types of value.
- The concept of 'eco-versity' is allowed to flourish and provide a more 'balanced scorecard' approach for assessing university engagements. This uses a 'triple bottom line' of environmental, economic and social sustainability is key to what PUMR members are currently seeking to do, but we need better metrics.
- Enterprising academics in them must be prepared to reach out, aggressively if need be, to add value because non-academic partners often find it hard to build sustainable relationships with higher academic institutions.
- Co-creating value with regional partners also co-creates opportunities for high quality research and learning for faculty and students because real solutions blend interdisciplinary points of view with the full complexity of social, cultural and economic settings.

Knowledge Cities need universities that work in more inclusive, innovative and integrating ways with them. This requires a paradigm shift in the strategy of universities. However, as useful as they may well be, advanced notions, such as PUMR, will take at least decade to embed, so we must be aware of this and the relevant time perspective; we must also be aware of this during the change process the difficulties that will inevitably follow when we try to introduce PUMR to the traditional world of university life'.

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