

Researcher development through working on commercial solutions to Grand Societal Challenges

Jane Nolan MBE

A Civic University

Asking not just what the University is good *at*,
but what it is good *for*.

We want to put academic knowledge, creativity
and expertise to work to help make a
difference to real-world challenges.

Delivering benefits to society as a whole
(Local, regional, national, global)

These are our 3 societal challenges:

- **Changing Age**
- **Sustainability**
- **Social renewal**



Newcastle Initiative on Changing Age



Newcastle Institute for Research on Sustainability



Newcastle Institute for Social Renewal

ASKING THE
BIG
QUESTIONS

Where Next? Workshops and ACTION

- Where Next? Workshops –an introduction to entrepreneurship for research students from all disciplines
- ACTION Competition - open to researchers and post docs from all disciplines
- Both involve working on commercial solutions to grand societal challenges

Where Next? Workshops

- Interactive 6 hour workshop
- Real life problem related to the Societal Challenge themes
- Set by an entrepreneurial academic
- Creative thinking, problem solving, opportunity spotting and solution finding
- Set up a hypothetical business a visual planning tool – engaging with business terminology and concepts
- Make a short pitch and receive feedback

Where Next? Workshops

- Societal Challenge themes and research provide engaging stories and real life case studies which bring the research and the opportunities to life
- For example:
- The workshops have explored commercialization opportunities of assistive technologies to help people with dementia and maintain personhood in dementia



Researcher Feedback

“I found this session to be very interesting and engaging: it helped me to see the wider possibilities for applying the skills that I have acquired during my PhD (and it also helped me to recognise skills that I had not realised that I possessed!)”

As a Literature PhD student I was not sure what I could bring to, or gain from a session on commercial awareness and business, but I was proven wrong. I would thoroughly recommend this to all Arts PGRs'

“The session opened my eyes to possibilities for work and projects outside (or alongside) a traditional research career.”

ACTION

- ACTION is a competition for Newcastle University researchers to address societal challenges through enterprise
- Researchers form teams to develop an interdisciplinary, commercial solution to a societal problem they identify and work on over 7 months
- UK research councils look for impact from research and there are drivers for researchers to have skills in enterprise and entrepreneurship. ACTION benefits from Engineering and Physical Sciences Research Council (EPSRC) funding

ACTION Competition



- First Prize - £2000 per team member
- Runner Up - £1000 per team member
- The prize can be used to develop the business idea as a team or for researchers' own entrepreneurial development
- ACTION2011 – Sustainability Challenge
- ACTION2012 – Social Renewal Challenge

ACTION 2013 Challenge North East

- What ideas can be sparked by our research community to tackle societal issues that have impact locally in the North East of England?
- Commercial solutions solving a local problem but which might have global relevance
- ACTION 2013 incorporates all 3 Societal Challenge themes
 - **Ageing**
 - **Sustainability**
 - **Social Renewal**

ACTION Team and Facilitators

- Katie Wray
- Elizabeth Scanlon
- Bryn Jones
- Gail de Blaquièrre
- Jane Nolan MBE



Interdisciplinary Teams

- Interdisciplinary teams of between 3 and 5 research staff and research students
- Training labs are provided to support their development
- Research Institutes provide context and inspiration

Lab 1



- 2 day Residential
- Interdisciplinary teams formed by end of first day
- Identify a societal issue which they will address and explore ideas for projects



Labs 2-6



- Three subsequent one-day training events held locally over the 7 months of the competition
- Two optional half day training events to support the Showcase and Presentation preparations



Public Showcase

Teams create a trade stand with a **prototype, video, model or other visual form** of their solution for viewing by the general public as well as the judges



The ACTION2012: Social Renewal Showcase in 2012 was a great success with **200** University colleagues, partners and members of the public attending the event.

Public Showcase



Winners 2011 – ZapZyme



ZapZyme used a novel enzyme discovered at Newcastle University, which is able to break down bacterial biofilms efficiently at low temperature and offers a sustainable solution to industrial cleaning processes by reducing the use of energy and strong chemicals.

Winners 2012 -Buggiwalk



Buggiwalk is a social enterprise to support recent parents to become 'socially active' (build a community and a healthy lifestyle) through pram walking – including electronic monitoring of distance covered.

What's in it for researchers?



- Engagement with grand societal challenges
- Developing an innovative solution to a real problem
- Demonstrating the impact and excellence of their research to wider society
- Collaboration across disciplines
- Formation of new interdisciplinary research networks
- Benefit of mentoring by experienced academics and entrepreneurs
- Increased awareness of the commercial potential of research

Quotes from ACTION Participants

“(The labs) have given me a real time collaborative experience in a multidisciplinary environment”

“There is power in multi disciplinary collaboration –it brought out the best in me.”

“Interdisciplinary work encourages more innovative thinking – things seem to be more achievable.”

“ACTION is about putting together innovative ideas to help solve societal problems through team work.”

Conclusion

- Grand Societal Challenges offer real life, complex issues that researchers can engage with in an interdisciplinary context
- They can be used as an effective means of developing knowledge, skills and attributes
- They can create opportunities to build collaborative communities and networks between schools, researchers, research institutes, external stakeholders and wider society.