#### sustainability

Lincolnshire Sustainability Think – Tank University of Lincoln, 24<sup>th</sup> of July 2012

#### supply chains

## food

Feeding the Think-Tank Scoping exercise

Marketing and Supply Chain Interest Group, MaSC University of Lincoln

## Outline

• Aim of this exercise (Rebecca Herron)

• What is MaSC? Who we are? Why be involved? (Martin Hingley)

• Sustainability dimensions (Eliseo Vilalta-Perdomo)

• Workshop (All the participants)

## Aims of this exercise Rationale

To explore the suitability of a sustainability thinktank in Lincolnshire that supports the development of a **research community** interested on identifying:

- links between different actors
- purposes, needs and interests
- potential trade-offs

In order to **coordinate effective** sustainable development **actions** 

## Aims of this exercise Research community - playground

- To support communities' engagement in their research interests
- To identify and advocate for effective mechanisms that develop researchers & practitioners collective knowledge
- To collaborate in the exploration of interesting, productive, "impactful" research questions? existing or new ones

## Aims of this exercise Future

#### Short-term

- •Focus at the intersections between sustainability, supply chains and food.
- •Revisit collective interests and actions in a yearly basis.

## Aims of this exercise Workshop

What we propose to do?

Time	Activity
10:30-11:50	Exercise 1: To recognise and list different notions when
	talking about sustainability and the food supply chain. To
	map relations between these concepts
11:50-12:10	Coffee break
12:10-13:00	Exercise 2: To propose different research questions emerging
	from exercise 1 - with the hope of informing both academic
	and local practitioners about how this topic will be evolving in
	the coming years
13:00-14:00	Lunch

#### What is MaSC?

• Who we are?

• Why be involved?

#### <u>Content</u>

#### •Sustainability

- The genealogy
- Dimensions
- Complementary or In Conflict
- Languages
- Potential contributions' matrix
- •Industrial Engineering
  - Current position
  - Current sources of improvement
- •Sustainability Division, IIE
  - IE professional & researchers
  - Potential contribution

## Sustainability dimensions

Eliseo Vilalta-Perdomo

Marketing and Supply Chain Interest Group, MaSC University of Lincoln

Lincolnshire Sustainability Think – Tank University of Lincoln, 24<sup>th</sup> of July 2012

## Sustainability Genealogy

Malthus, 1798,

Club of Rome, 1968

Brundtland Report (March, 1987)

United Nations Conference on En

What is (ought to be) the Research Agenda to Support Sustainable Improvement? What are (ought to be) the contributions from practitioners and researchers? What is (ought to be) the role and level of engagement of different communities in sustainability research activities?

Global Conference on the Sustainable Development of Small Island Developing States, May-June 1994

Programme for the Further Implementation of Agenda 21, June 1997

#### UN Millennium Declaration, 2000

Millennium Development Goals 2005

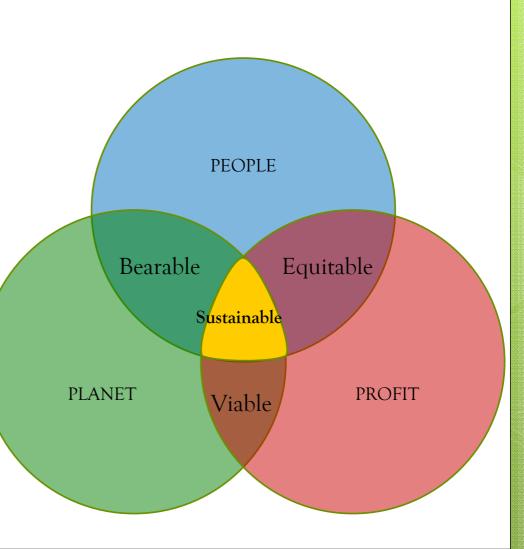
Lincolnshire Sustainability Think-Tank, 2012

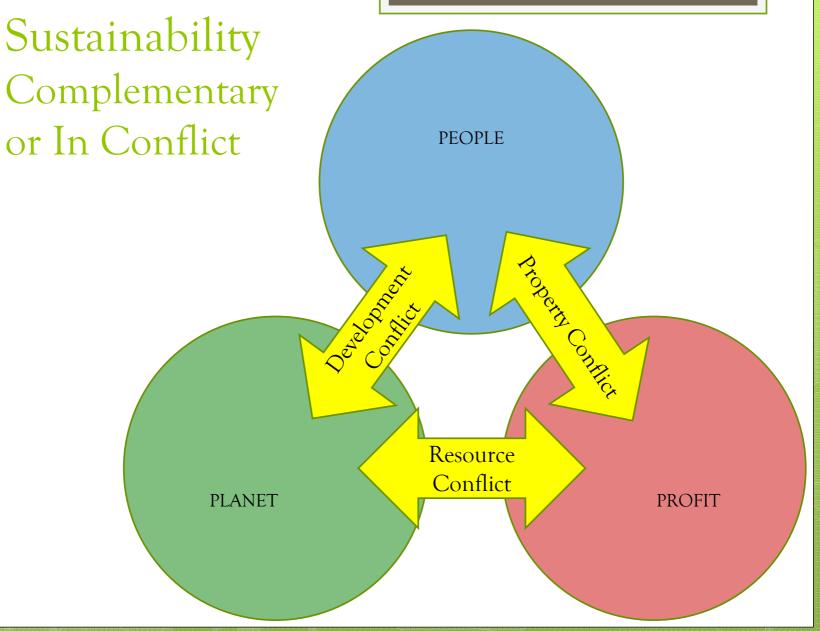
#### Sustainability Dimensions

**Bearable**: affordable development that increases quality of life

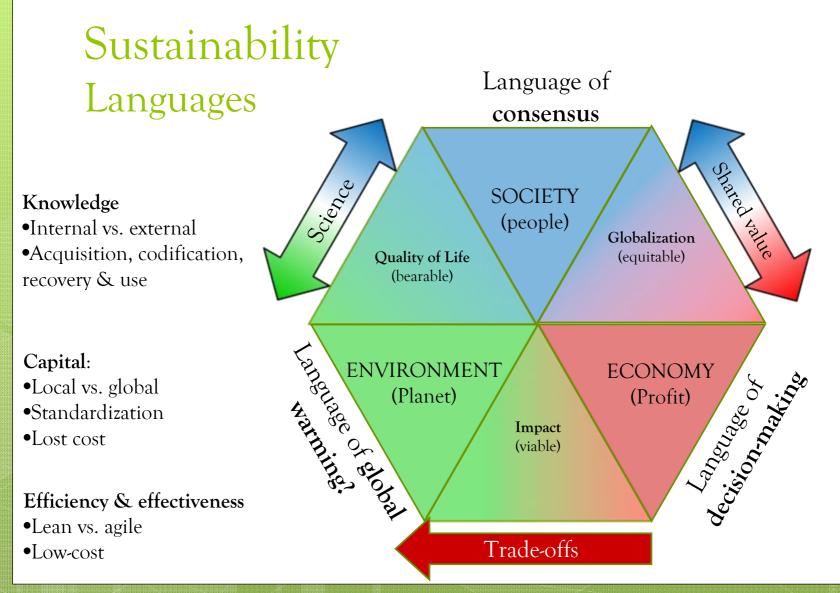
**Equitable**: provides similar opportunities to everybody

Viable: runs its activities in the long-term





(Vilalta & Corliss, 2012)

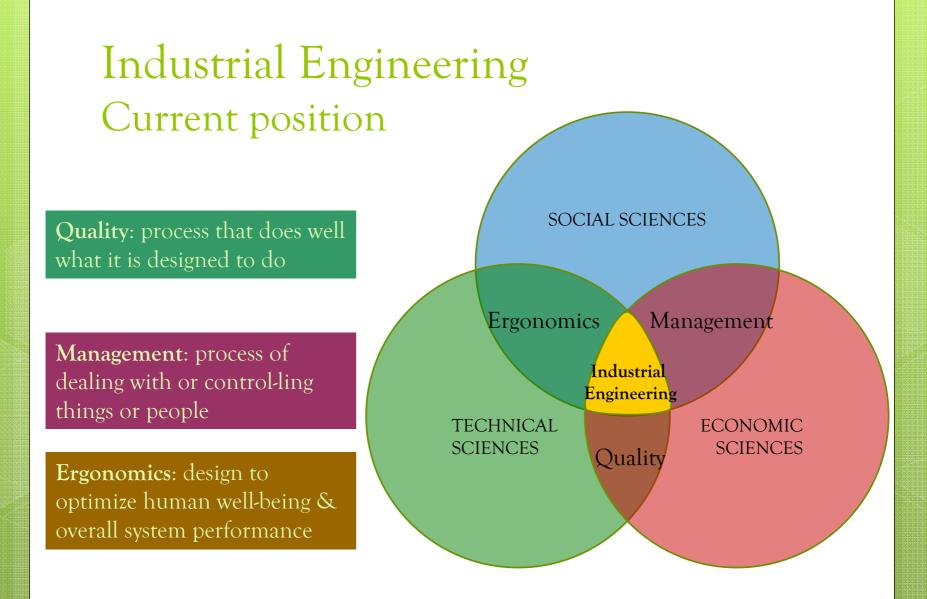


(Vilalta & Corliss, 2012)

#### Sustainability Potential contributions' matrix Industrial Engineering example\*

	Society	Economy	Environment	
People	Coordination (language)	Effectiveness	Sustainability	IE per
Profit	Equitable	Decision-making (language)	Efficiency	perspective?
Planet	Bearable	Viable	Natural laws (language)	
				•

Environmental perspective



(Vilalta & Corliss, 2012)

#### Industrial Engineering Current sources for improvement \*

- EFFECTIVENESS. "A dimension of organizational performance involving the ability to choose and achieve appropriate goals".
- EFFICIENCY. "A dimension of organizational performance involving the ability to make the best use of available resources in the process of achieving goals".
- SUSTAINABILITY. To be developed

#### Sustainability division IE professional & researchers Holland:

## Potential **role** of the **Sustainability Division**:

To become a source for better-informed sustainable decisions:

Should we buy roses from Holland or Kenya?

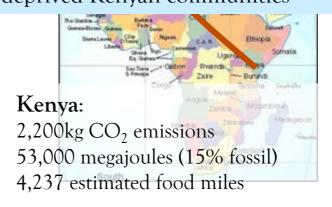
Is this the right question?

\$100 million USD annually injected on deprived Kenyan communities

35,000kg CO<sub>2</sub> emissions

221 estimated food miles

550,000 megajoules (>99% fossil)



Note: According to Williams (2007) for 12,000 roses

#### Sustainability division Potential contribution

Some potential tasks for the **Sustainability Division**: 1.Define the concept of SUSTAINABILITY in the IE context ~ What is IIE's definition of sustainability 2.Identify Hot Topics:

- IE Tools which, with or without modification, are applicable to Sustainability
- Fields where IE research and practice can excel

# Thank your for your attentionQuestions?Comments?

#### 10:30-11:50

Exercise 1: To recognise and list different notions when talking about sustainability and the food supply chain. To map relations between these concepts

#### Isssues

- Charles Dennis: (Marketting) Consumer Behaviours change needs to be done over a longer period – underlying trends – tracing publicity/media effects over time (eg free range eggs)
- Alan Robson Dealing with primary producers (diary, pig, unviable at present) arable doing reasonably well at present – dependent on oil / fertiliser prices. Threats. Retailers – efficiency/security (food safety) engaging with big industries taught a lot. Global changes – agendas changing Unilever etc coming together – Value creation...interest is shape of things for the primary producers (UK and overseas). How do we feed our cities – cities / modern agriculture fairly unsustainable. Linking applied sciences to social sciences. More to worry about now than for a long time..... Efficient production but at producer end not sustainable
- Terry Miller Environmental advisor /sustainable communties environmental behaviour and sustainability – wrestling with idea what sustainability is – mapping local with the global – mapping what those connections are. Believe in local as the next revolution. Come up to buffer about believing the solution lies with Big Corporations / big solutions – issues to do with power / control – undersetimated peoples ability to come up with own solutions / feed themselves - sufficient critcal mass - but have to do the caluculations (can we feed our city – but cant deny our global interactions – joined the local to the global

- Nick Cheffins Consultancy/PT lecturer/ Biologist (cycles) fixation on closing loops can be developed at a range of different sizes from v large scale (Nocton) through to much smaller scales (return to allotment development) calculations re inherent viability. Don't get away from '3for 1' culture / waste how to communicate/debate/ market core issues and seeing oppositions to it (eg initial marketing of GM) need to learn from this re marketing/ideas. Next stages mix of evolution and revolution. Need to transform some things and need to do it quickly. Now things happening on unthought of timescales will pay very big bills (costs of food / social disslcation)
- Jo Holmes Lindum background in construction. Building for Bavvover etc finding practical sets of solutions to budgets (and M&S reacting to the communities). Headline issues eg recycling rainwater (tcks the box and may attract some funding) once built buildings why do most of the equipment come from other parts of EU not locally. Wider construction industry nature of tendering processes legislation led need to know we are on a level playing field with our competitors sustainability is not something we have to do if the clients want it we can do it.....
- MH: Surprisingly little connections / connectivity between companies at different levels within supply chain. Extroadinary disconnection between all industries at all levels in Lincolnshire
- NC: Digestors conferences being kept together because it was the first time bsuinesses had had time to talk to each other loss of face-to-face communication (eg within Engineering) sideeffect of modern ease of communication..further DISCONNECTS
- MH: importing labour ....

- Kwesi Aggrey: Univ of Lincoln. Connectivity wider spectrum lack of co-ordination among actors when comes to food supply. Definitions exist for Efficiency and Effectiveness but not sustainability. But society is not static keeps changing so impossible to get a stable definition need to bring actors together to negotiate discuss how we sustainability.... Cannot depend on specific professional bodies to determine what society should think... How to bring people together to produce solutions / think imaginatively about problems always leave out one or 2 groups of people who would be very important basic groups/people) how to create a network / coordination system to sustain discussion
- MH: struck by how people report in business the retail trading etc. Need for Corps to show year on year GROWTH. Share-rating Endless growth or not successful the way we report sustainabaility is wrong
- NC : comes back to a mature society a healthier, happier society, dependence on support services

- Martin Hodgkinson: Lincolnshire as a place to debate/discuss these issues. Construction background. Charitable projects in UK and overseas. Interest in what keeps communities society – makes them sustainable – making lifestyles worth living. Gloabbly don't think society knows how to manage itseldf. Global governance? Global democracy. Fastest communication – rapid societal change – not working out how to grapple with it.
- Martha Vahl: CERD Centre for Education Research and development University of Lincoln Student as producer (evaluation) sustainability of this. Example in the USA where birds dying ask the question why short-term solutions (eg growing crops well but birds dying) got a cookie of our own diet. Product of the science we have produced..... Profit matters and we organise around this. Intersted in communities stakeholders? Shareholders? What of other ideas of community? Very different values / different concerns. If people change what they do others will be effected (eg if people grow there own...) how as researchers can we research this so that at least to some sense we can act in a way that is sensible.....Sustainability I can change my course of action if I know what you are going to do. Co-operation/coordination through reasearch we don't have to agree on the aims/values but we can co-ordinate? What are the side-effects. Science is slowly realising there are people involved (not just abstractable objectives) can we sustain something like 'knowledge' that sustains people to act (better)...
- NC: Changes make the whole 'social ecosystem' change issues about how we handle new technologies. Much of Knowledge is hidden away (developed for a company) – e.g. GM, sustainable technology – lack of arbitration at the consumer end

- Martin Hingley: Professor of Marketting (a returned Lincolnian) regeneration from an industrial city to something else. Agricultural background across to food chain producers to retailers. Profound changes Holbeach when started it was local workforce now short-term globalised workforce) sustainable communities in these towns. Dislocation with the food industry. Research doen and published about who primary producers engage with retailers / the power interface.
- Eliseo Perdomo Vilalta Mexico key exporter of people (to US).
- MH: high culture of not working in UK health and social consequences. Diet issues
- E P-V: How many specialist food shops appearing how to consider communities communities within communities. Ghetoisation.
- MPH speed of communication and how business manages and conducts itself. E.g. mobile phones in Africa / developing countries
- MPH technology usage and creating opportunities using technologies in other countries. New Business Opportunities
- NC: How this will effect food chain management?
- KA: How do we think of sustainability? Is it group dependent? (ie different for consumers, producers, poliitians) a global concept or a moving

- NC: Questions of scope and boundaries of the notion of sustainability
- NC: Biological/ecological perspective where do the feedback loops/circles close – linear/nonlinear process? What do parts of the cycle depend on...... Resources in and out of the 'system' / production cycles..on any scale....

#### 12:10-13:00

Exercise 2: To propose different research questions emerging from exercise 1 - with the hope of informing both academic and local practitioners about how this topic will be evolving in the coming years

## Blue Skies Thinking (the Bill Gates List ...!)

- Measurements of Well-being: Happiness Index self reporting with regards to food and people producing food. (10% sampled annually – Household survey) – but problem of acting on this measure once you have measured it!!
- Calculating the impact of local businesses (versus importing) and the environmental impact
- Identifying where the key producers of (e.g waste, pollution) come from
- How do we use our students work commissioning students (students as producer) – connecting these and focussing with outside interests – how to steer students endeavours...
- Travel and tourism ideas and marketing (e.g marketing Lincolnshire)

## Within Our Grasp .... (thought leadership in Lincolnshire?)

- Connectivity value adding / marketing. consumer aspect
- Food chain challenges communities of businesses all focussing on same client (ie selling to M&S) – cooperation across the value chain is difficult. Silo mentality – exclusivity of supply chain. Ramification back through the chain (e.g. to construction) – global supply chains
- Poacher Cheese example of a business dropping out of a supply chain. Ulnteresting to explore the connectivities they have created in this process
- Creativity from smaller industries (Lime Tree Pantry)
- A mature industry re-invents itself

- Not just the What also the How ie could we invite people to this group to discuss in depth more about the ideas about how to support businesses in the food chain
- How to connect aspects of the food chain to its wider benefits eg allotments – if aspects of the food chain can add to other elements (eg Local Authorities in Birmingham) – could we develop a partnership with the City of Lincoln (now with Green Charter) to extend ideas – broaden the Green Charter from the usual suspects to a broader conversations – eg to explore the interest of communities to grow their own food (driver in BHam – was to grow speciality foods) – links to communities where 2<sup>nd</sup>/3<sup>rd</sup> generation grew/cooked own food
- UK distance from growing / cooking potential for communities to learn from others (especially new communities)
- shortening the food chain in the wolds wholesale hub (lacking in Lincolnshire)
- Where is a body of information ./ research to say to a farmer 'why don't you think about your business differently?@ eg supporting the public good value for public health (Strategic research)

#### • Drivers of poor health – Public Health concerns

- Marketing needs for making allotments user friendly needs update – measuring welling. Health on allotments (2 months subscription for allotments in businsess model = 1 year)
- Strategic modelling scenario planning....
- 22 August NHS Lincoln MH increasing consumption of 5 a day... report written on people's knowledge and understanding of health potential to link to allotments idea
- Looking at foods imported supporting seasonal menus. But also a displacement of impact across the supply chain
- Gardeners interest in growing something and then wonder how to use exchange market
- Alternative exchanges/mechanisms swapping the food chain as a mechanism to enable groups communities to organise themselves

- Is there a shift from environmental sustainability to social sustainability ??
- Connections between local issues/needs and food e.g. Harvest Festival / food moments over the year that link to the foods that they have....
- Identity and belonging and people reconnecting to a sense of place needs to have a sense how precious your environment is whereever you are (that connectivity needs to be thought through / enabled within people)
- People organise themselves in a response to society (e.g. Big Society, Social Enterprise, Community actions, volunteering etc) not always a business or a public sector are the active agents
- Some analysis of the impact of 'Big Society?'
- People working for something they feel passionate about can be more effective but passion cannot be imposed needs to be fed, not driven
- Community life passion to get things done together is very special and want to be maintained
- Threat of chaotic legislation / disorganised legislation need our legislation to support people to change
- Terry ' waste is an attitude of mind'.....attitude/strapline sporned a huge number of projects activities...... thinking imaginiatively about uses of the resources : how to generate ideas how to have another way of looking at things in the business of identifying unused reasources

 Analysis of how different interest groups change over time – eg balance between social and environmental – eg legislation for eco-building

# What might WE do? (our own agency....)

Exploring mutual potential for co-operation

• What would you like from us?

• What would we like from you?