D@UHZ

Introduction to Education for Sustainable Development

Prof. Denise Galvin

University of Alicante

t d'Alacant
d de Alicante

Co-f
Temp
of th


Learning in Future Environments Ranking
Employer Needs
Rising Tuition Fees
Localisation Trends
People and Planet Green League
UN Decade of ESD
LEARNING FOR SUSTAINABILITY
Changing Student Expectations
Internationalisation of HE
UN Conference on Sustainable Development 2012 'RIO + 20'
Globally Responsible Leadership Initiative
Global Responsibility
Sustainable Schools
Globalisation
Green Economy and Skills
Employability

@UHZ

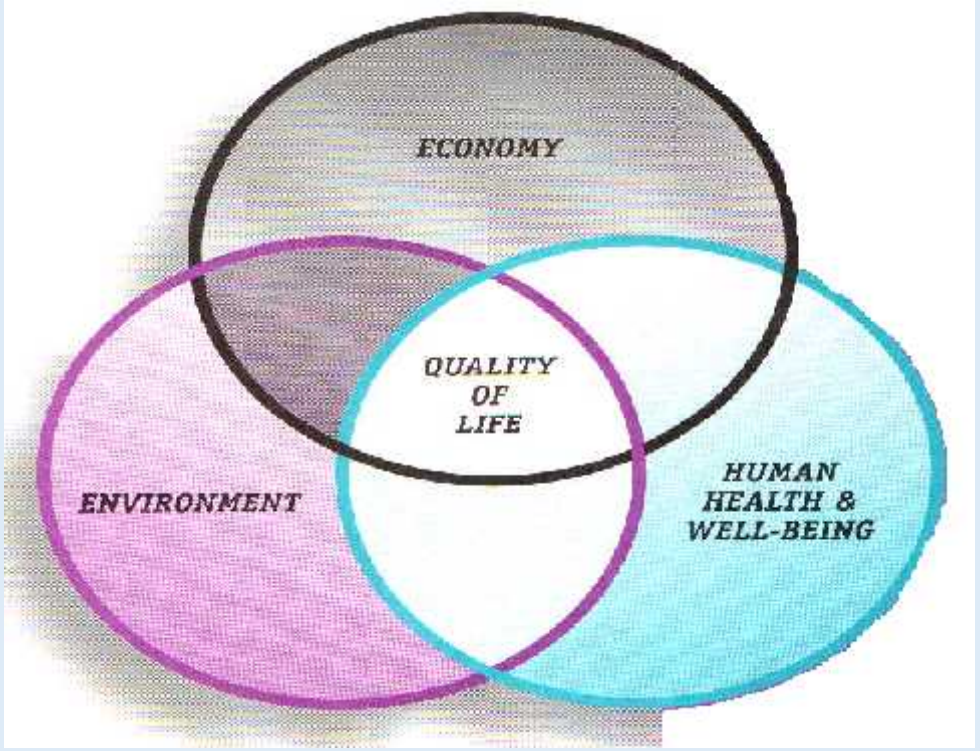
ESD – a new concept for the higher educational sec
ESD and innovation
ESD from a global perspective
ESD from a local perspective

t d'Alacant
d de Alicante

Co-fu
Temp
of the

D@UHZ

– a multi discplinary oach for teaching earning



t d'Alacant
d de Alicante

Co-fu
Temp
of the

D@UHZ

ESD is about learning to:

- respect, value and preserve the achievements of the past;

- appreciate the wonders and the peoples of the Earth;

- live in a world where all people have sufficient food for a healthy and productive

life;

- assess, care for and restore the state of our planet;

- create and enjoy a better, safer, more just world;

- be caring citizens who exercise their rights and responsibilities locally, nationally and globally.

(UNESCO)

D@UHZ

Key principles and definitions

ESD concerns educational content and methodology

ESD promotes skills like critical thinking and imagining future scenarios

ESD treats the three pillars of SD in an integrated manner

ESD encompasses formal, non-formal and informal education and learning

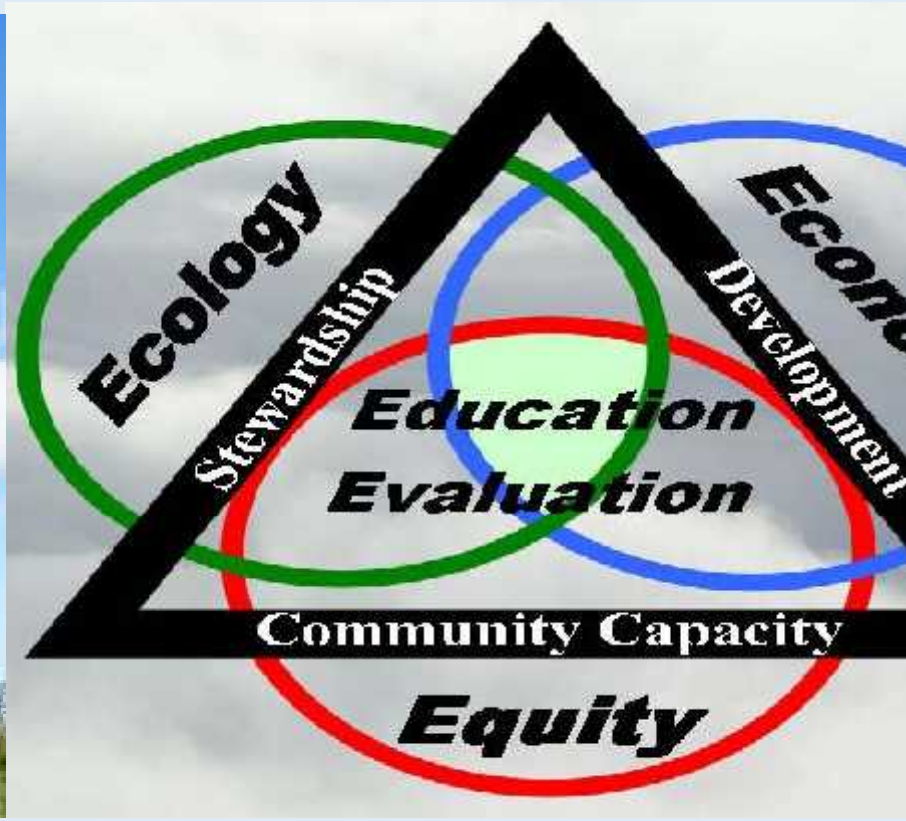
The Global Programme also encompasses activities that are in line with the above but may not be called 'ESD'

UNESCO, 2014-2015

t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ



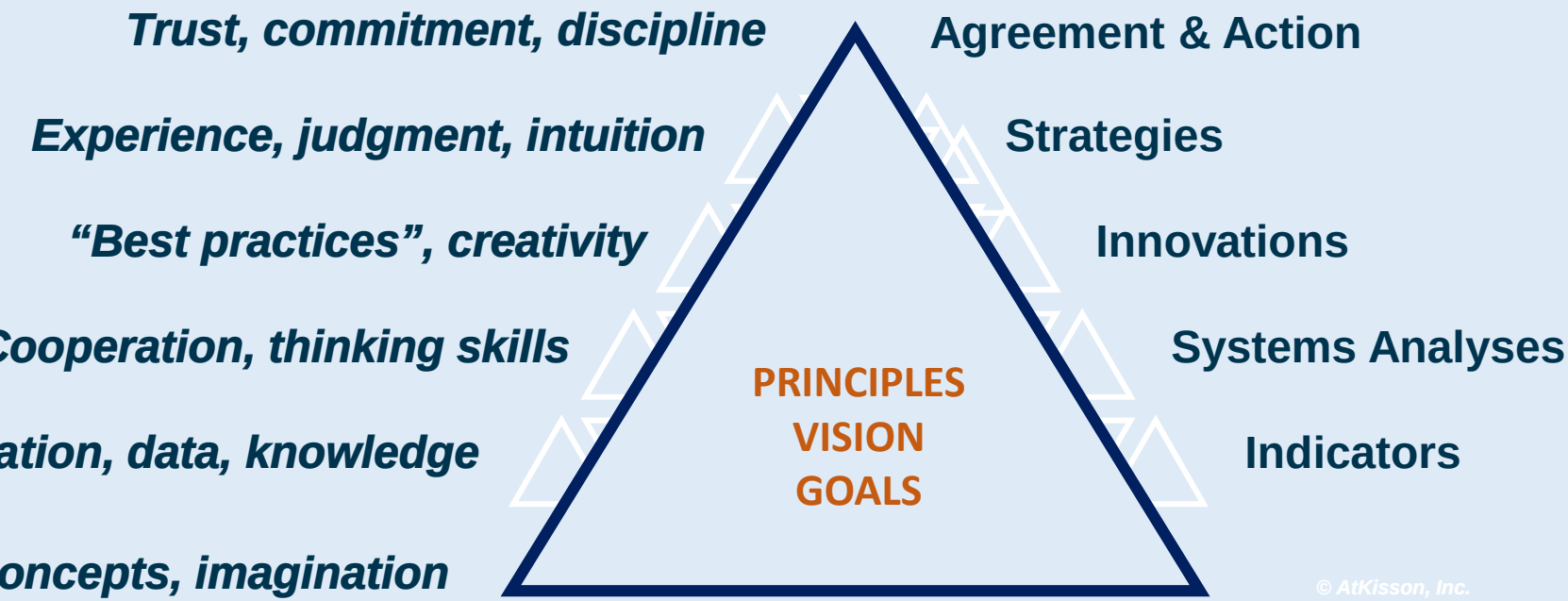
v role for universities – Education for Sustainable Development

t d'Alacant
d de Alicante

Co-fu
Temp
of the

D@UHZ

What practical sustainable development requires?



PRIORITY ACTION AREAS

1. *Advancing policy*
2. *Transforming learning and training environments*
3. *Building capacity of educators and trainers*
4. *Empowering and mobilizing youth*
5. *Accelerating sustainable solutions at local level*

D@UHZ

The management of universities should create organisations and/or organisational structures with a cross-disciplinary mandate to promote ESD activities

t d'Alacant
d de Alicante

Co-f
Temp
of th

HEIs should become models of SD, not only in what is taught but in how all manner of university activity is carried out, i.e. purchasing policy, campus greening, employment policy, equity and other such issues

D@UHZ

Governance

A systemic approach to implementing Sustainable Development in universities:

- ESD Given Priority in Strategic Plan
- Board and Policy development
- Committees
- Budget
- Community Partnerships
- Evaluation and Monitoring

D@UHZ

Universities should engage in joint learning experiences/create strong partnerships with companies, governments, NGOs etc. on SD/ESD

t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ

Facilities & Operations

Sustainable principles are applied to the design, construction and renewal of division buildings and all aspects of facility management, procurement, resource use and transportation.

- Facilities and operations assessment
- Facility renewal plan based on LEED (Leadership in Energy and Environmental Design) or equivalent standard
- Operations plan that includes actions in procurement, energy efficiency, water conservation and waste reduction.
- Schools structure and outdoor space are “facilities that teach” sustainable practices
- Develop a sustainable transportation plan

D@UHZ

Human Resources

Human resources policies, practices and development plans are aligned with sustainable development principles.

- Professional development is provided for professional and support staff
- Education for Sustainable Development practices are profiled and recognized
- Succession Planning (e.g. Leadership Development)
- Develop and Implement a staff wellness plan

D@UHZ

Teaching & Learning

Students acquire and demonstrate the knowledge ,skills ,attitudes and life practices that contribute to a sustainable future.

-Cross curricular focus of ESD in all subjects

-Project-based learning focused on ESD

-Pedagogy focused on systems thinking, inquiry, active learning, futures thinking, problem solving from a local and global perspective

Connections to student engagement, citizenship and relevance

What does educating for sustainability include?

Transversal skills that provide students with:

- **Knowledge**
- **Values and Attitudes**
- **Behavior**
- **Preparation so that, as adults, they are able to deal with the challenges of living sustainably on both a local and global level**

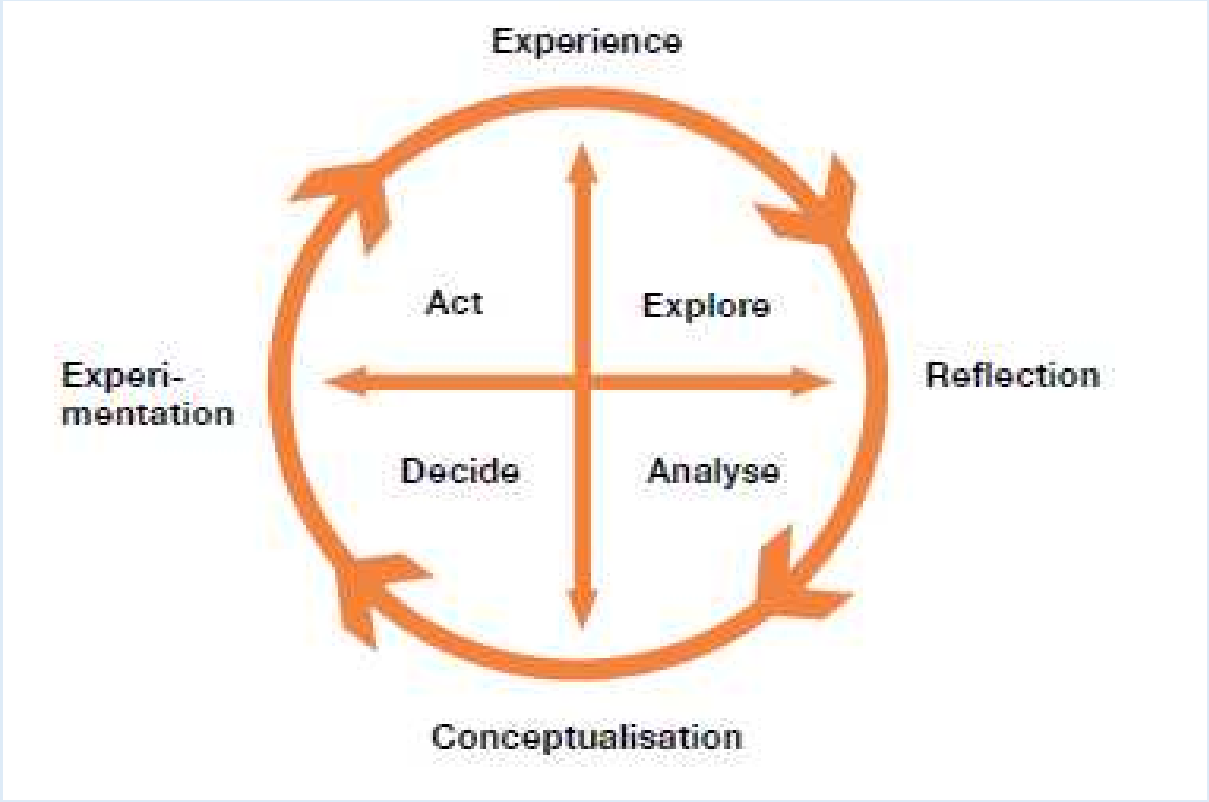
- **Envisioning** – being able to imagine a better future. If we know where we want to go, we will be better able to work out how to get there.
- **Critical thinking and reflection –** learning to question our current belief systems and to recognise the assumptions underlying our knowledge, perspective and opinions. Critical thinking skills help people to examine economic, environmental, social and cultural structures in the context of sustainable development.
- **Systemic thinking** – acknowledging complexities and looking for links and synergies when trying to find solutions to problems.
- **Building partnerships** – promoting dialogue and negotiation, learning to work together.
- **Participation in decision-making** – empowering people

Tilbury & Wortman (2004)

D@UHZ

Key Skills

- The skills to understand the relationships between different issues, appreciate how they are connected and, as a result, make decisions and solve problems in a connected way
- The skills to enable groups to make collective decisions and work cooperatively together even though all members of the group may not hold the same views and power may not be distributed evenly among the group.
- The skills to think critically about problems, issues and situations to enable individuals and groups to move beyond thinking about how can we make the systems and products we have less unsustainable, to thinking about the kind of systems and products we need to achieve sustainability


Experience
Act
Explore
Experi-
mentation
Reflection
Decide
Analyse
Conceptualisation

D@UHZ

Key Attitudes

- The confidence to take action and the confidence that these actions will make a positive difference.
- The appreciation that we are all part of society and that our individual behaviours must be balanced by our responsibilities as members of that society.
- The attitude that humanity is part of the natural world, that we depend on it for our wellbeing and that we must respect its limits and live in harmony with it.
- An attitude of respect for the biological, social and cultural differences and diversity that are a fundamental part of our world.
- An attitude for caring for yourself, for other people, for other living things and for our planet. (The Environmental Association for Universities and Colleges, UK)

- Cross curricular focus of ESD in all subjects
- Project-based learning focused on ESD
- Pedagogy that supports students to acquire and demonstrate the knowledge, skills, attitudes and life practices that contribute to a sustainable future

Example: Action research, which is 'self reflective inquiry' provides a process for the collection of evidence regarding educational practices for purposes of increased understanding of both the practices and the context in which they are used. Action research people to their practice 'to the test' through collecting compelling evidence. As a result it allows the action researchers to give reasoned justification of their education work to others (Henry & Kemmis, 1989)

Educating for sustainability

Ecological: Protect natural resources; maintain the basis of production; reduce and avoid environmental degradation; conserve biodiversity; minimise destruction to ecological systems caused by agricultural production

Economic: Contribute to the productivity of the whole economy; safeguard and improve employment opportunities in agriculture; food security and food quality

Social Reality: Avoid and solve global environmental problems; international fairness in distribution of and access to natural resources; food security in the global context; access to international treaties and agreements on SD (Harris, 2003).

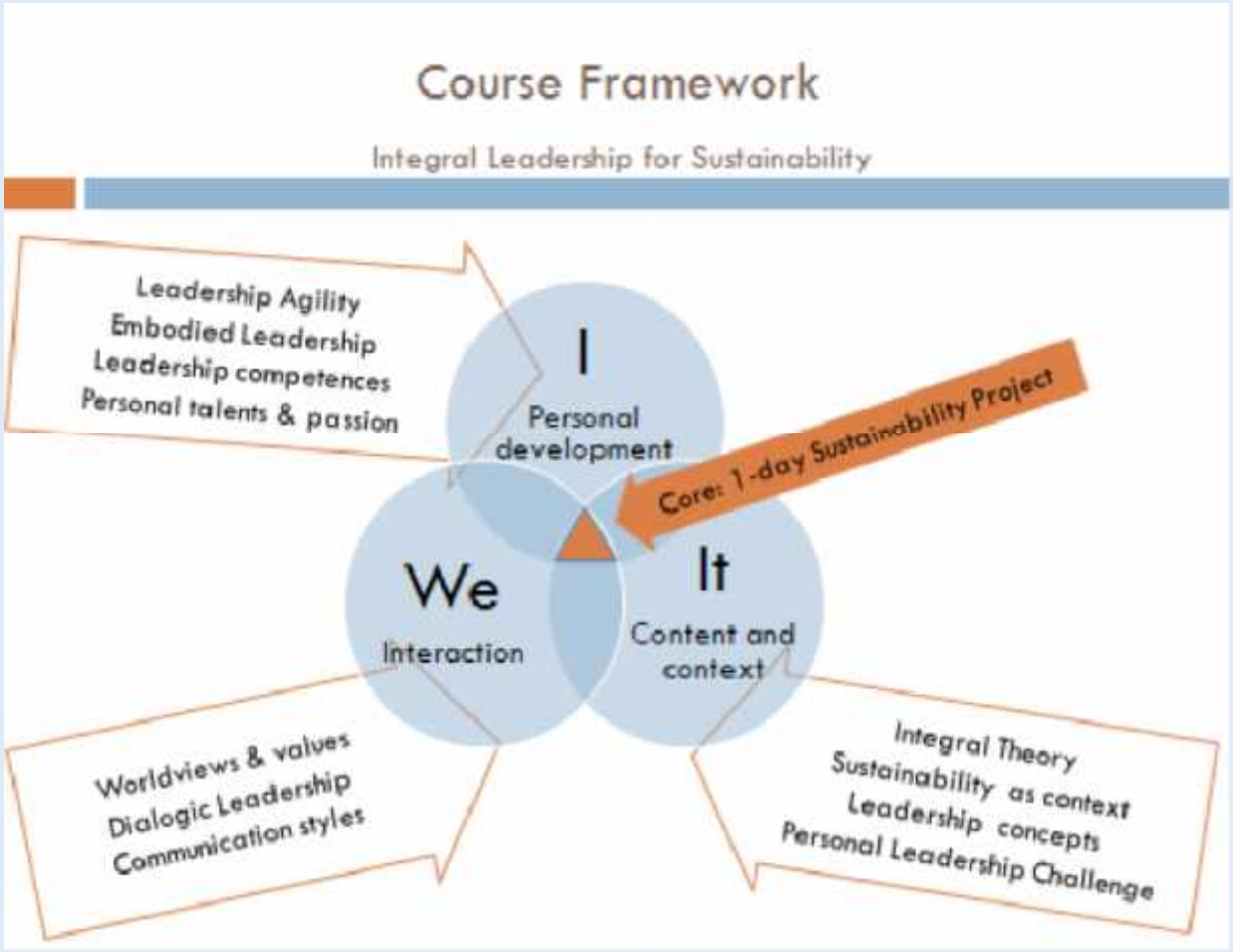
D@UHZ

chers select course content that:

- eals with real-life issues
- lows students to learn in active anner
- hat influences and impacts at oth the local and global levels

t d'Alacant
d de Alicante

Co-f
Temp
of th


Course Framework
Integral Leadership for Sustainability
Leadership Agility
Embodied Leadership
Leadership competences
Personal talents & passion
I
Personal development
Core: 1-day Sustainability Project
We
Interaction
It
Content and context
Worldviews & values
Dialogic Leadership
Communication styles
Integral Theory
Sustainability as context
Leadership concepts
Personal Leadership Challenge

D@UHZ

ESD FOR INNOVATION

t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ

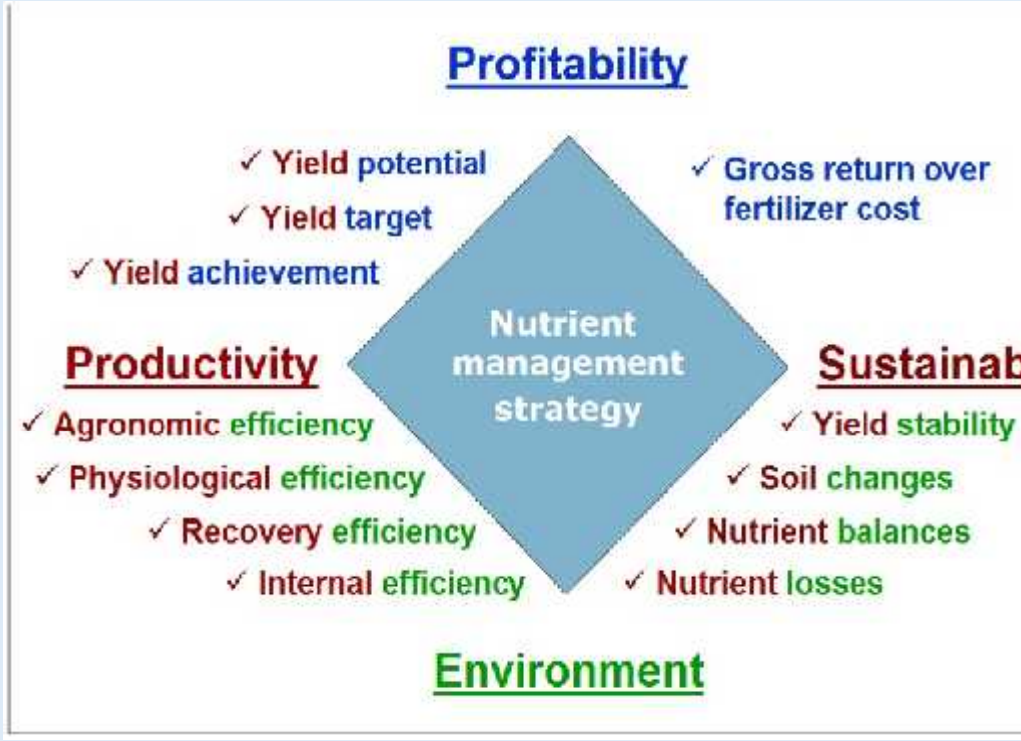
Courses for Innovation and Sustainability

- **Combine the literature on innovation theory with practical case studies on kinds of innovations, how long they took to emerge, diffuse, etc.**
- **Broad survey of current and emerging best practices in a wide range of areas, from natural resource management to “green job” development**
- **Combines technical and process/cultural issues**

D@UHZ

pecific Nutrient Management
gy

Local knowledge
Education
Innovation

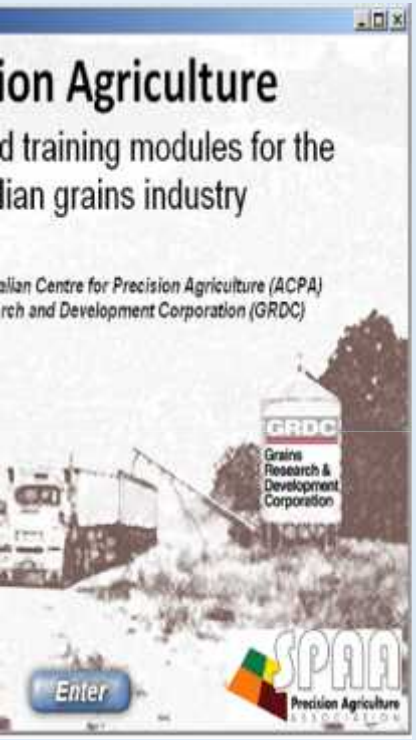


t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ

Precision Agricultural Technologies



Makes efficient use of local knowledge

t d'Alacant
d de Alicante

Co-fu
Temp
of the

D@UHZ

Eco-innovation: SPIN Project (sustainable production through innovation in small to medium enterprises)

elping companies to operate ore profitably and to reduce eir environmental impacts applying eco-innovations is e key issue of the initiative ad by the German Federal vironment Agency. The oject involves partners from ermany, Poland, Lithuania, tonia, Finland, Sweden and enmark

t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ

SPIN uses different instruments to support matchmaking of demand and supply of eco-innovations, i.e. bringing together small and medium enterprises (SMEs) in need of new technologies and processes (elicited e.g. by EU directives related to environment) with suppliers of sustainable innovative solutions

t d'Alacant
d de Alicante

Co-fu
Temp
of the

- The **SPIN** database contains good practice examples and products for sustainable which can be matched to the demand side in industry-specific SME workshops
- In addition to bringing together businesses, these matchmaking events allow deeper insights into why companies are sometimes reluctant to introduce environmentally sound techniques

D@UHZ

SPIN has analyzed the needs of SMEs supplying or applying innovations for sustainable production

SMEs particularly lack information and know-how on:

- **the actual environmental impact of their own activities**
- **existing innovative solutions to make their production more sustainable**
- **the potential benefit including cost savings and better performance from introducing innovative solutions**

t d'Alacant
d de Alicante

Co-f
Temp
of th

D@UHZ

ESD FROM A GLOBAL PERSPECTIVE

- A report commissioned by UNESCO (2011) reviewed several case studies of national progress - Chile, Indonesia, Kenya, the Netherlands and Oman - in learning and education for sustainable development (ESD).
- There are a wide range of approaches but, at the heart of all initiatives, are multi-stakeholder and collaborative partnerships which aim to instigate social change towards a more sustainable future

D@UHZ

Implementing ESD

- Many of the ESD initiatives are organised in primary and secondary education and highlight different theme projects
- In higher education the approach tends to be more piecemeal and few initiatives are directed towards early childhood education.
- Non-formal education initiatives tend to be organised by civil society organisations and NGOs but these do not tend to be showcased
- Country studies indicate a requirement for greater encouragement of non-formal learning opportunities (outside the school or university environment) and action plans that ideally should involve the business sector, indigenous communities and the media
- Countries should aim to challenge the existing education structure using systems thinking that explores links and synergies, innovation and participative learning

t d'Alacant
d de Alicante

Co-fu
Temp
of the

D@UHZ

Partnerships for ESD

- Case studies indicate a need to advance from simple cooperation mechanisms to creating true long-term multi-sectoral partnerships between a diverse range of groups, including governments, education, business and NGOs
- Countries should identify the actions needed to support these partnerships

t d'Alacant
d de Alicante

Co-f
Tem
of th

D@UHZ

Monitoring and evaluation mechanisms

- Kenya and the Netherlands were the only countries with monitoring and evaluation systems to review the progress of ESD initiatives
- The monitoring and evaluation of ESD is a new and complex area, which needs further development
- These monitoring processes should aim to be participatory, involve multiple stakeholders and should also assess the quality of ESD learning processes and experiences

D@UHZ

Framing and Coordinating ESD

Strategies and policies for implementing ESD are underpinned by a common ethos and mission according to the DESD (Decade of ESD) principles, but the processes of coordination vary between countries.

- **The Netherlands promotes social learning among ESD stakeholders, civil servants, project leaders**
- **In Chile the ESD framework is implemented through national and regional action plans. From the case studies it is clear that a successful ESD strategy should involve a wide range of stakeholders, be embedded in government decision-making and promote coordination across government departments**
- **The report also concludes that ESD policies should be created through participation of all stakeholders as well as involving citizen consultation**

D@UHZ

ESD at the local level

- Environmental problems in Kosovo have accumulated over a long period of time
- Interrelated issues of environment has thus far have not been thought of comprehensively as part of the problem or Solution
- Nor addressed as such by the respective insitutions at all that are responsable for solving such problems in systematic and organised ways

- **The first step is to increase knowledge on environmental issues**
- **If Kosovo wants this type of transformative knowledge over the long term schools and universities need to develop this knowledge and environmentally friendly awareness with the younger generations** **(Education for Sustainable Development Kosovo, Research Report 2011)**

D@UHZ

Questions?

Thank you!

t d'Alacant
d de Alicante

Co-fu
Temp
of th