

CLUB of BOLOGNA

25th Annual Meeting of the Club of Bologna

November 15-16, 2014

Bologna – EIMA International 2014

**Sustainability – The industry approach for
improving competitiveness and future
viability**

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Content

(1) Definition ‘sustainability’

(2) Motivation why to deal with ‘sustainability’

(3) VDMA approach

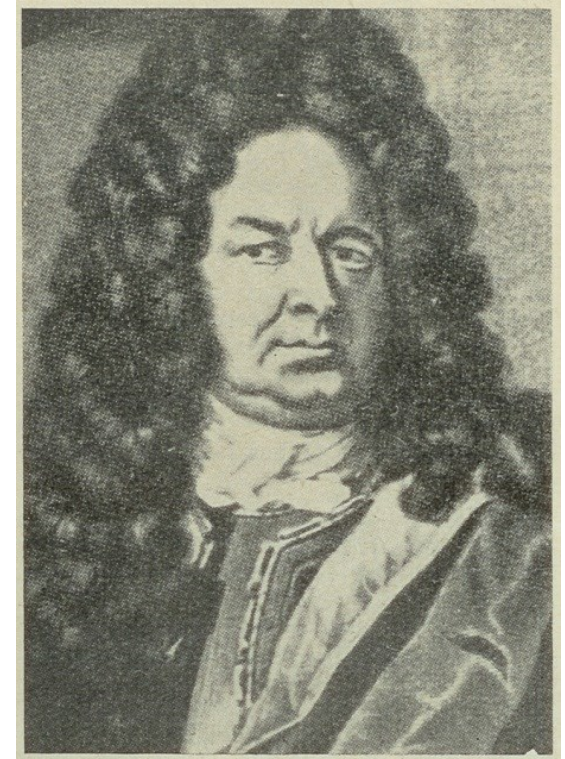
- **Position Paper – Recommendations**
- **Tool for agricultural machinery industry**

(4) ISO 17989-1 Sustainability – Principles

Summary

Definition

- **‘Sustainability’** means
 - to meet the needs of the present without compromising the ability of future generations to meet their own needs
 - by considering environmental, economic and social aspects
 - to balance and to integrate economic, ecological and social aims



Hans Carl von Carlowitz
,*Sylvicultura oeconomica*
(1713)

Source: <http://de.wikipedia.org>

Motivation

- **General**

- Significant global challenges (climate change, availability of resources, growing population,)
- Different regional strategies (access to new energy and raw material reserves – increasing efficiency – use of renewable energies, ...)
- Comprehensive EU legislation (gaseous / particle emissions, eco-design, energy efficiency, EEE waste, ...)

- **Agriculture / end customer**

- Seen as significant player / contributor with respect to environment related emissions (e.g. CO2 footprint)
- Needs support by machinery industry

Motivation

- **Standardization**

- ISO strategy 2011/2015 requests to provide answers on global challenges
- ISO Guide 'Sustainability' (\approx ecological aspects)

- **Industry / in general**

- Growing interest in sustainability (labels) as market and competition relevant argument, e.g.
 - Green Automation, Green Production, Blue Responsibility, Blue Competence, ...
- Growing interest / pressure to show social responsibility (e.g. company reports)

Motivation

- **Sustainability = ideal instrument to support competitiveness and guaranteed future for companies**
 - VDMA's main motivation & message
- **Advantages / facts**
 - Known and approved principle (see family owned farms / companies)
 - Holistic approach allowing to resolve conflicting requirements
 - Sustainability addresses core interests and business of companies
 - Step by step and company specific approach is possible
 - Allows to show personal responsibility

VDMA Steering Committee

- **Tasks**

- To specify guidelines / strategy for technical issues
- To identify trends (technology, legislation)
- To initiate projects
- To monitor and to control projects
- To support CEMA and AEF

- **Sustainability**

- Industry Task Force
- To provide VDMA members with recommendations for implementing the principle 'sustainability'



Task Force 'Sustainability'

- **Members**

- Small / medium sized and large companies to reflect all members

- **Work program**

- **Recommendations how to implement 'sustainability'**
 - Position Paper 12/2013
- **Tool to evaluate the sustainability situation in the company (on-going)**
 - KIM Pro Agricultural Machinery
- **Drafting of sustainability reports**
 - Postponed until tool data will be available



JOHN DEERE



Position Paper 12/2013

- **Objectives to show that**

- Holistic approach of sustainability offers opportunities to increase the competitiveness and future viability of a company
 - Generating of profits (economic sustainability)
 - Pre-condition for long-term stability & ability to take care of stakeholders interests
- Agricultural machinery industry is affected & challenged
 - As all other engineering companies
 - As key sector and industry of the future in the areas of food and energy supply particularly valuable contributions are possible

Position Paper 12/2013

... Objectives

Ecological aspects

e.g.

- less consumption
- less waste materials

Economic aspects

e.g.

- product quality & reliability
- reuse of materials

Social aspects

e.g.

- education / training program
- safe work places

Reduction
of costs

&

Motivation and
availability of
employees

Innovation

&

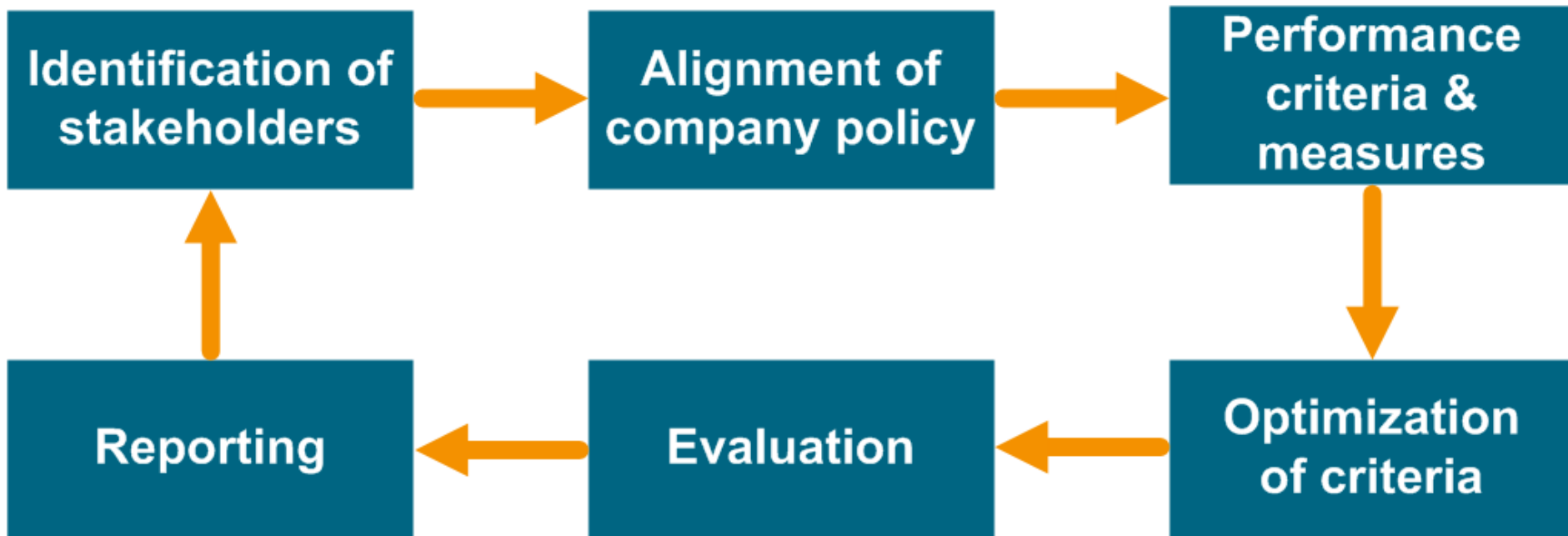
Competitiveness

Sustainability

Success by avoiding waste of ...

Position Paper 12/2013

- Recommended Approach



Position Paper 12/2013

- **1st step: Identification of stakeholders**

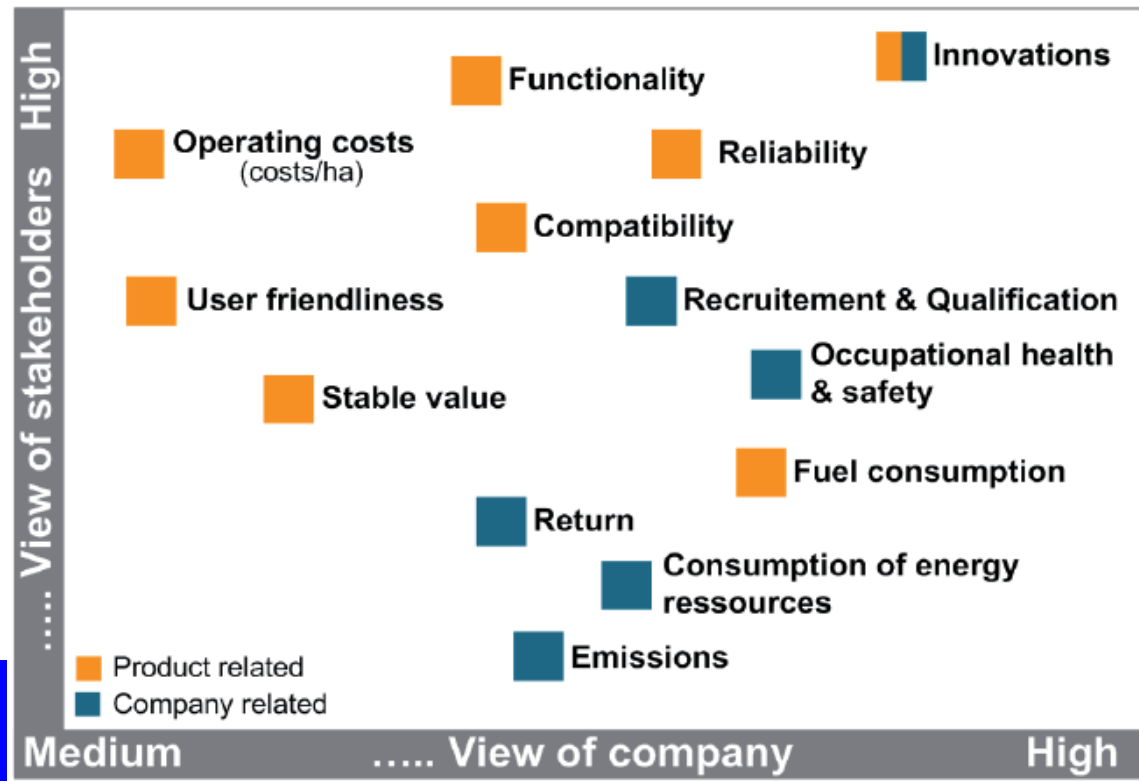
- **Owner(s) & Employees**

- Long-term successful company development

- **Business partners** (supplier, dealer, end customer)

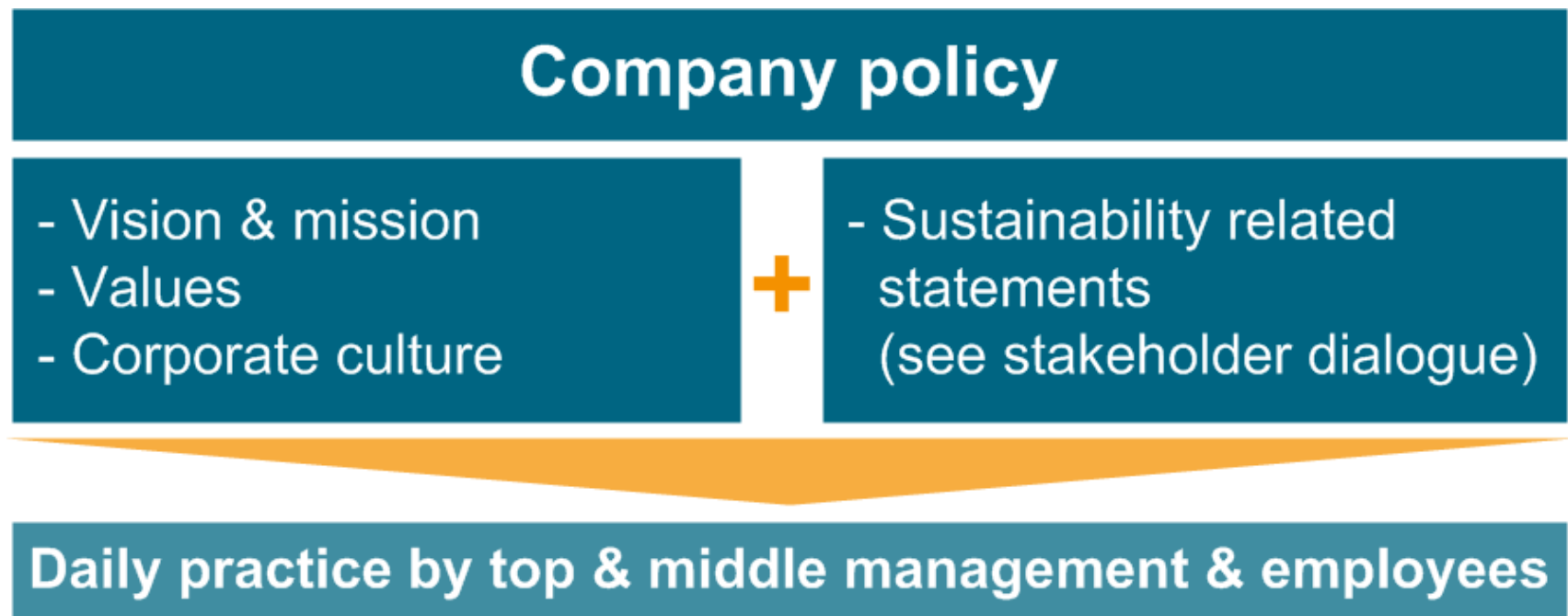
- Product / life cycle oriented

- **Others** (analysts, media, scientists, politicians, society, communities & residents at the locations)



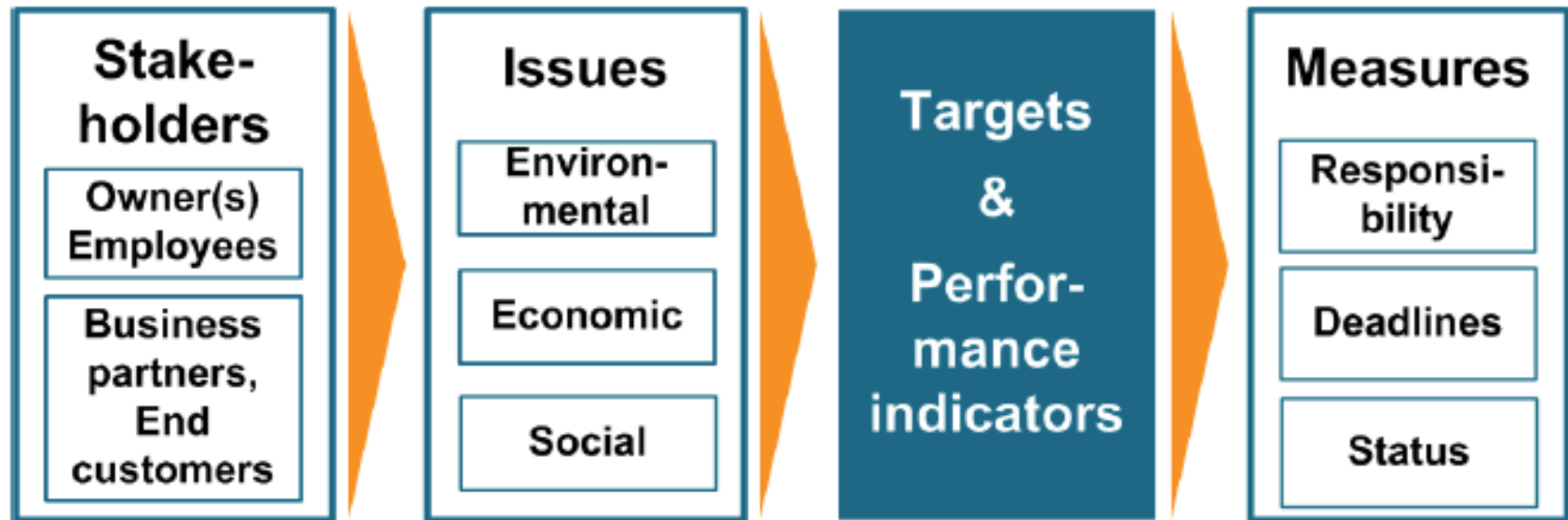
Position Paper 12/2013

- **2nd step: Alignment of company policy**



Position Paper 12/2013

- **3rd step: Performance criteria and measures**



- See also 'Sustainability Reporting Guidelines
- (Global Reporting Initiative / www.global-reporting.com)
- KIM Pro Agricultural Machinery

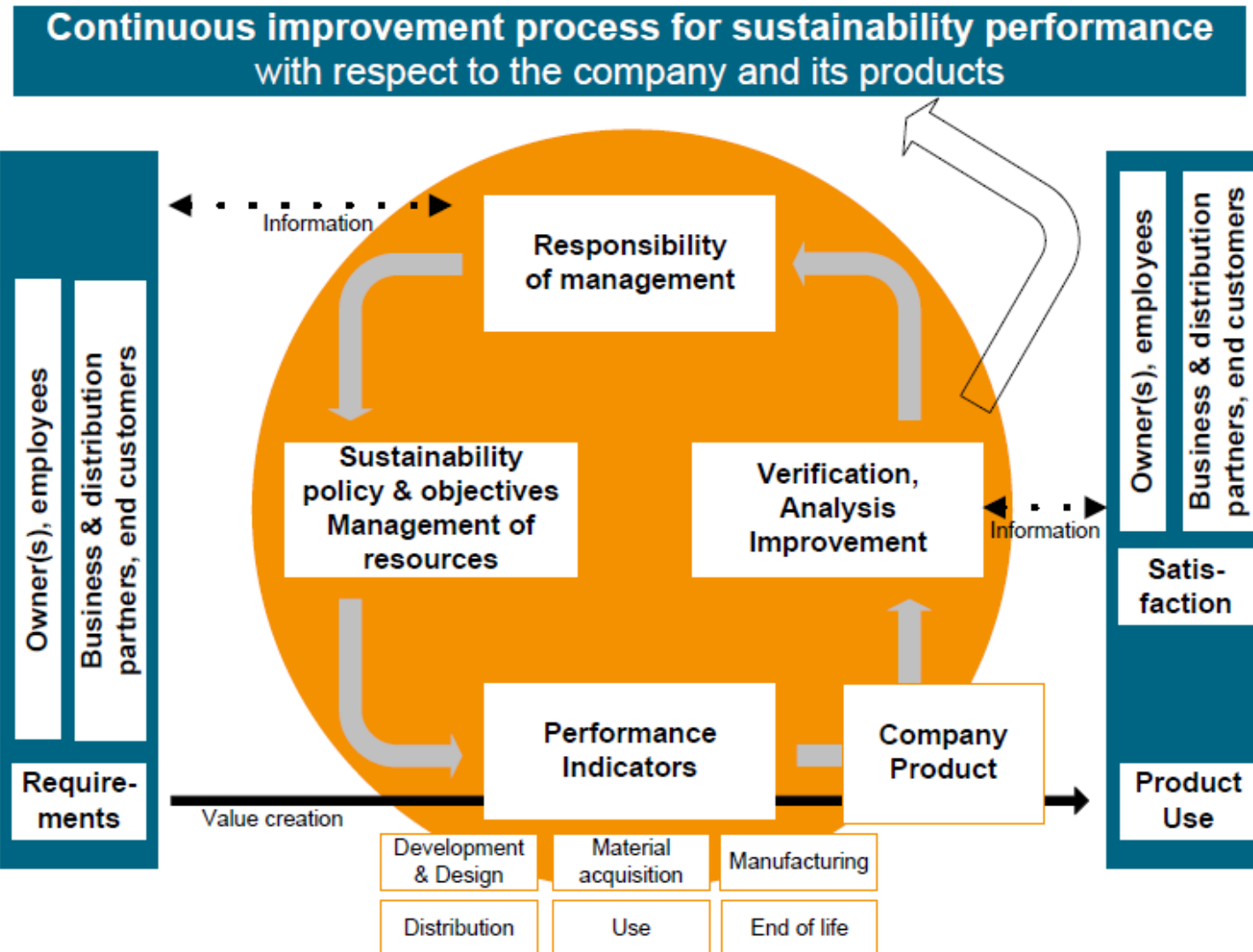
Position Paper 12/2013

... 3rd step ... - Examples

Product life cycle related aspect	Targets /characteristics / indicators	Possible measures (who / how / when)
Development (ecological & social aspects)	Quality / Cost reduction & health protection in production / energy consumption & work- place design / kWh	Designer / preferably forming process rather than welding / element of specifications for new designs / ongoing process
Purchasing (economic aspects)	Increasing product quality & reduction of quality costs / supplier audits / rejection rate	Purchasing manager / suppliers with quality management / quality assurance agreement / ongoing process
Production (ecological, economic & social aspects)	Quality cost reduction & employee satisfaction / process optimization / compliance with delivery deadlines	Production employees / problem reporting to designer, e.g. lack of fitting accuracy / reporting form / promptly, ongoing

Position Paper 12/2013

- 4th step:
Optimization



Position Paper 12/2013

- **5th step: Evaluation**

- Part of continuous improvement process
- Part of KIM Pro Agricultural Machinery

- **6th step: Reporting**

- **Within the company:** to generate awareness, motivation & identification to keep the process going
- **To the outside:** to inform about the company's sense of responsibility, future orientation, etc.
- **Most important**
 - Responsible use of the term 'sustainable'
 - Data & facts shall correspond to the reality & be traceable

Tool 'KIM Pro Agricultural Machinery'

- **Objectives**

- Evaluation of sustainability related performances by the company itself (no third party certification)
- Collecting, evaluating and documenting data
- Tool aligned with the ag machinery industry needs

- **Partner organization**

- Sustainum Consulting (part of 'The Berlin School of Economics and Law')

- **Tool**

- **C**riteria **I**ndicator **M**odel specifically designed for the agricultural machinery sector
- 2 main elements

Tool 'KIM Pro Agricultural Machinery'

Questionnaire to be completed by employees

(selected persons / groups)

„What do you know and feel about the company's behaviour with respect to sustainability?“

&

Characteristic numbers

e.g.

- consumption of water, energy, raw materials
- waste (various categories)
- inability to work, trainings

Individual / subjective views

Measurably / objective data

Sustainability status of the company

- To get comments & proposals for improvement
- To increase motivation & involvement

- To measure parameters
- To optimize parameters

Tool 'KIM Pro Agricultural Machinery'

- **Status**

- Workshop in February 2014 to align the existing tools with the specific needs of our industry
- May to July 2014 company individual workshops for implementing the tool
- August to November 2014 Application of tools
- February 2015 Results to be reported

ISO 17989-1 Sustainability – Principles

(EN ISO standard)

- **ISO/TC 23/WG 4 ‘Sustainability’**
 - Members: CA, FR, DE, IT, SE, ES, UK, USA
- **Scope**
 - Guidelines to assist manufacturers when integrating sustainability principles into the company
 - Factory gate as system boundary
- **Content**
 - Similar approach as specified by VDMA Position Paper
- **Status**
 - DIS enquiry to be closed on 2014-11-19

Summary

- **Principle of sustainability offers opportunities for**
 - The society to deal with challenges (climate change, limited resources, food for growing population, etc.)
 - The industry to improve competitiveness
- **Agricultural machinery sector needs a specific standard**
- **VDMA recommendations to implement ‘sustainability’**
 - To comply with the demands of sustainability correctly
 - To show a practical approach and the benefits
 - To use the language understood by industry