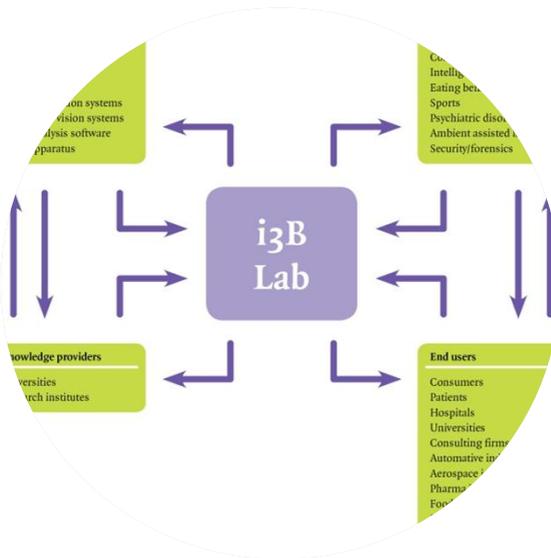


ICT, diergedrag en fysiologie: ingrediënten van de veehouderij van de toekomst

i3B-4-Livestock

18 september 2012, Kees Lokhorst



A time for change



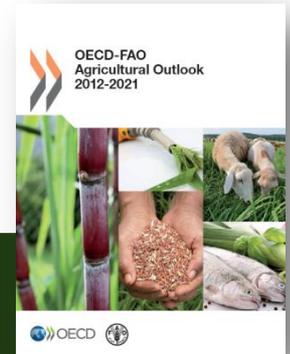
Agricultural production needs to increase by **60%** over the next **40 years** to meet the rising demand for food



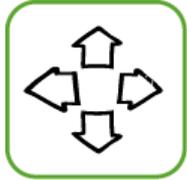
Total arable land is projected to increase by **only 69 Mha** (less than 5 %) by 2050



Additional production will have to come from ***increased productivity***



Veehouderij uitdagingen



Schaalvergroting

Zet snel door



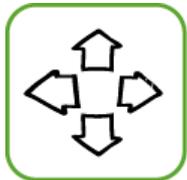
Dieren welzijn

Volop in discussie



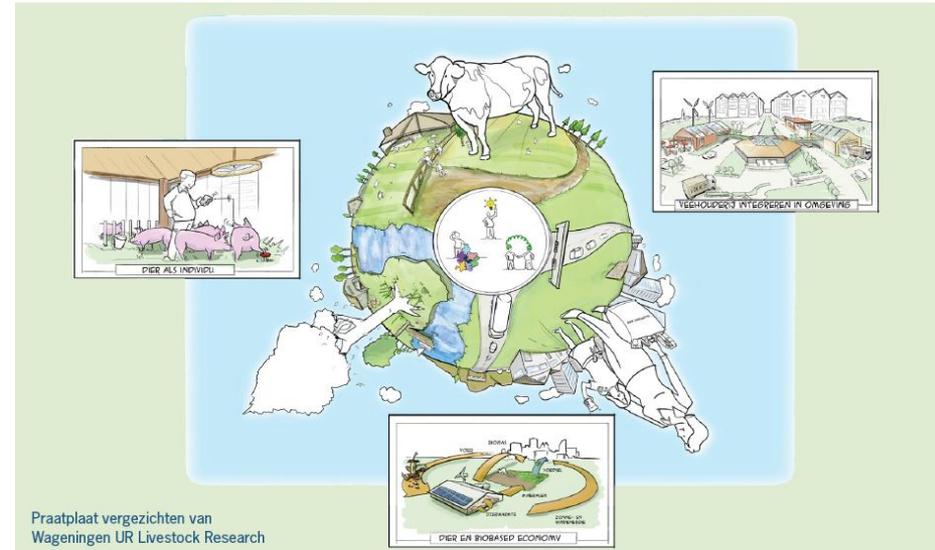
Dier- en mensgezondheid

Van curatief naar preventief



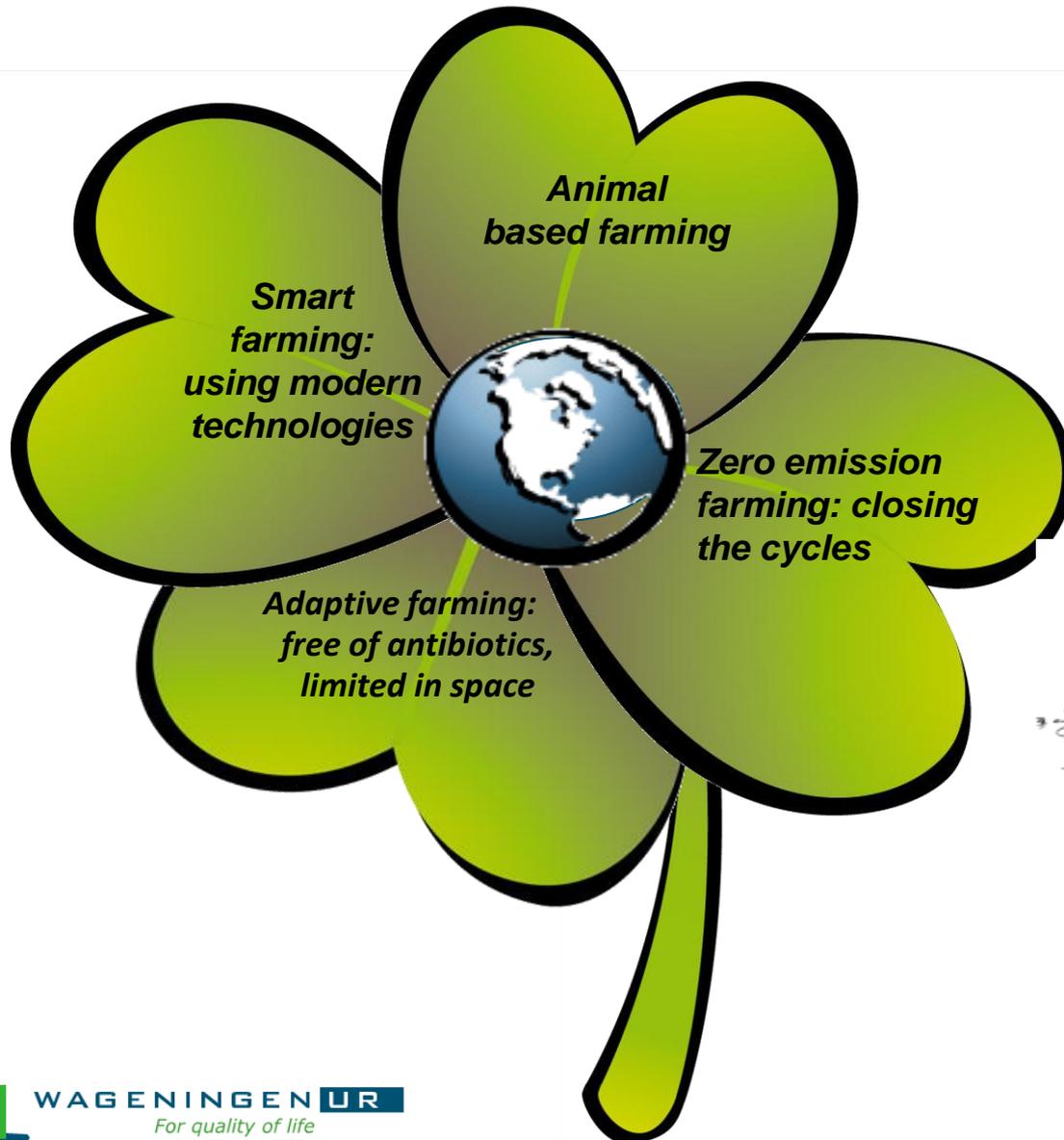
Ecologische footprint

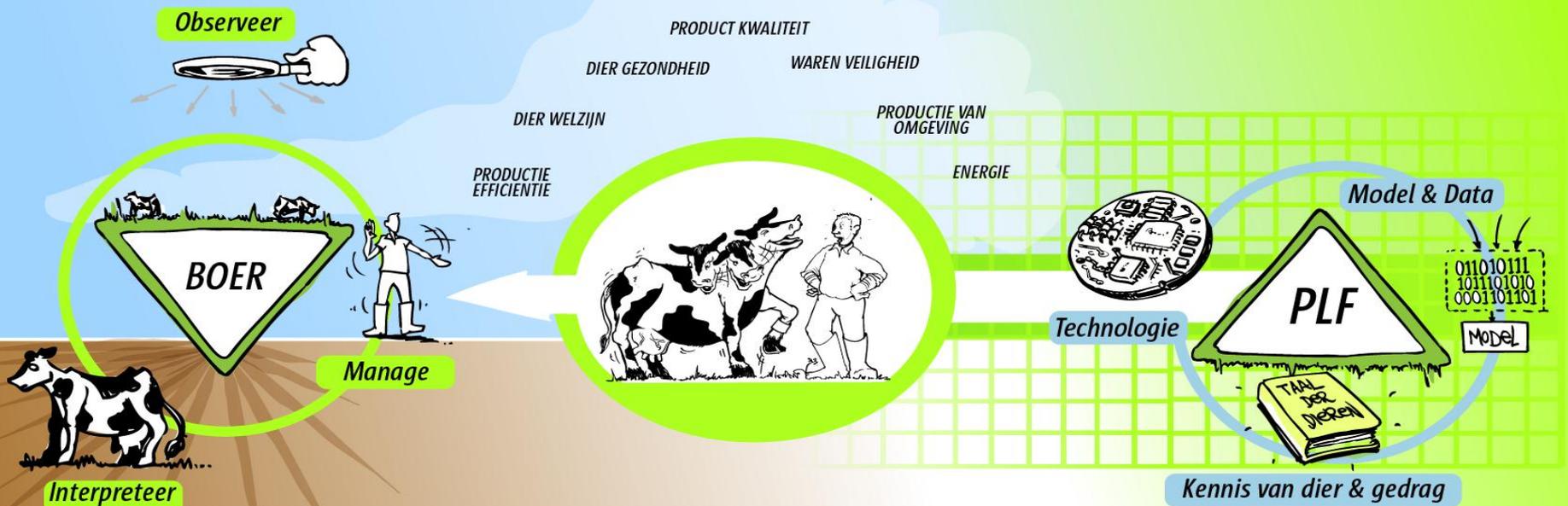
LCA en kringloop denken voor duurzaamheid



‘Empower farmers to reach the full potential of their animals’

The four leaf clover for livestock farming





Animal <> group [paradigms] variation <> uniformity

AGRO SYSTEM

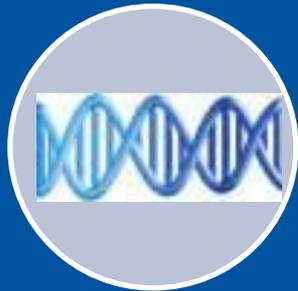
TRENDS

KNOWLEDGE SYSTEM

‘CREATING A SMART FOOD & FEED ENVIRONMENT’

Mainstream technologies to bring the changes

Applied technologies



(Gen)omics:
Radical
changes



Micro system-
and
Nanotechnology:
Radical changes



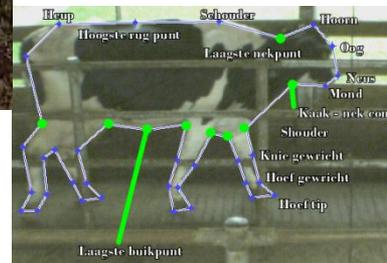
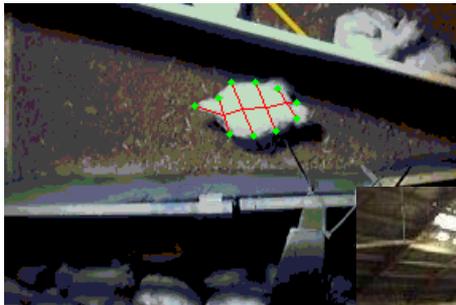
Information and
Communication
Technology:
Continuous
changes

Implementation in animal production will follow same dynamics

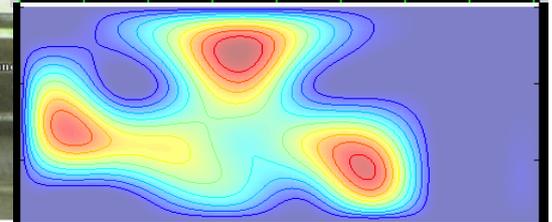
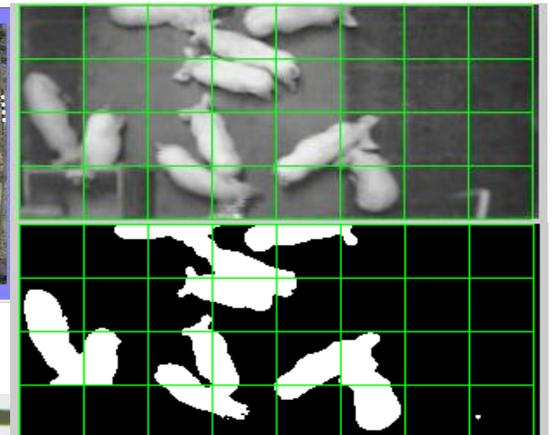


What is Precision Livestock Farming

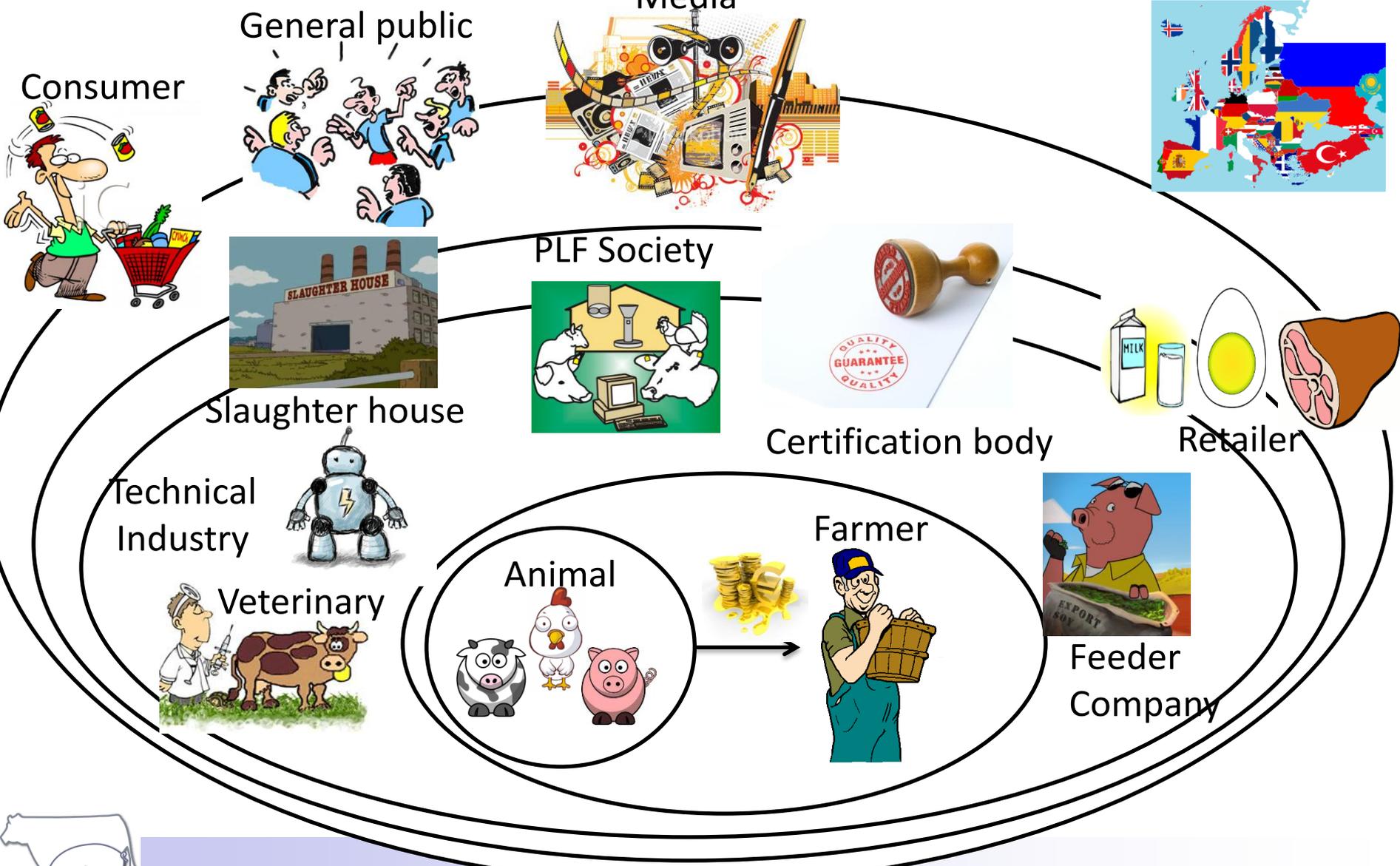
Management of livestock farming by automated real-time monitoring/controlling of production/reproduction, health, welfare and environmental impact of livestock.



Groen = Uiterlijke punten (groen relatie met anatomie)
Blauw = Anatomische punten



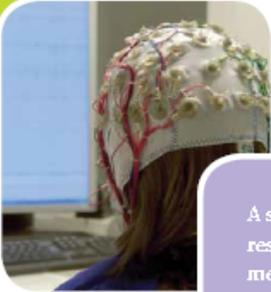
PLF - Stakeholders



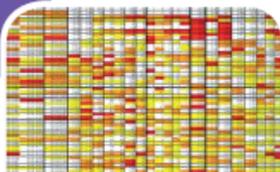
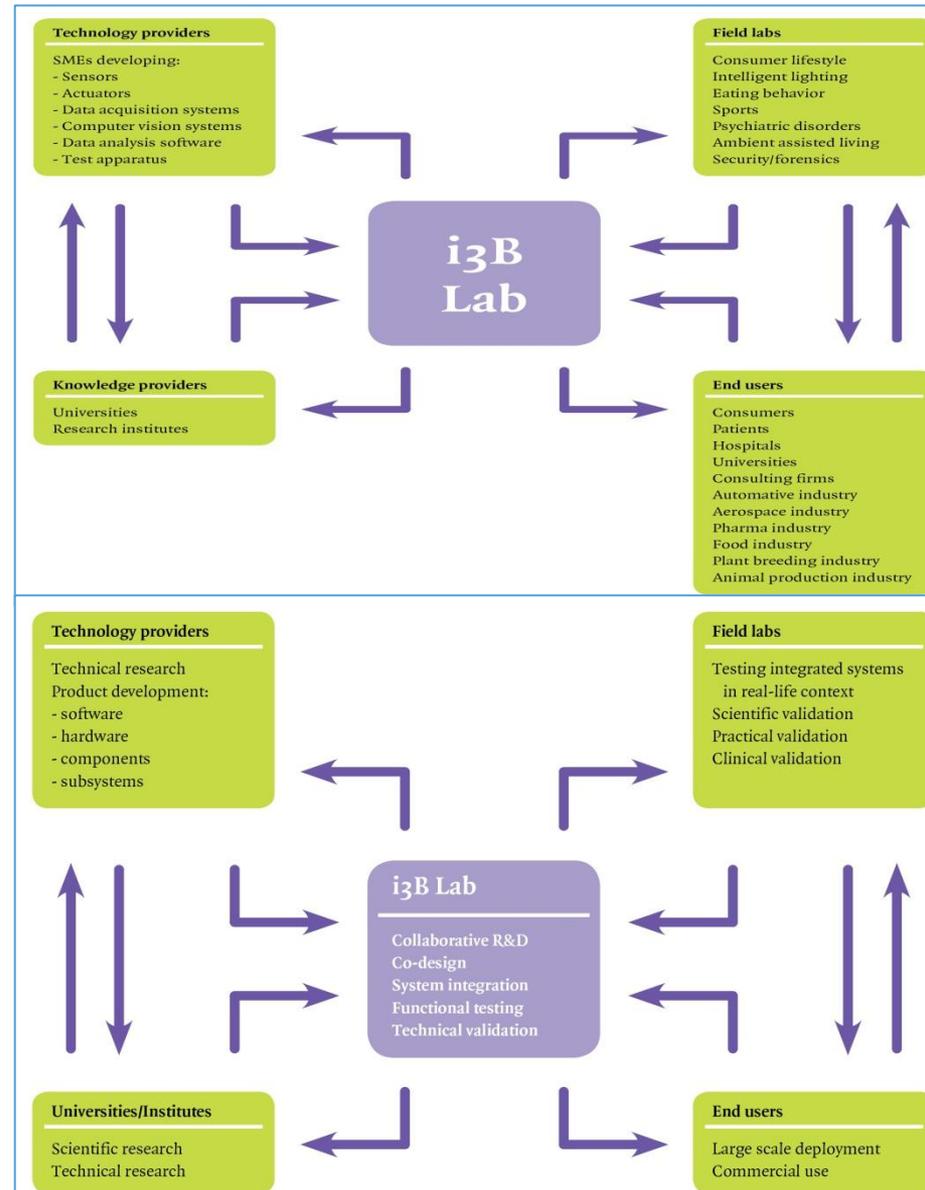
And then came i3B ..

**ICT for
Brain, Body & Behavior**

Business Plan

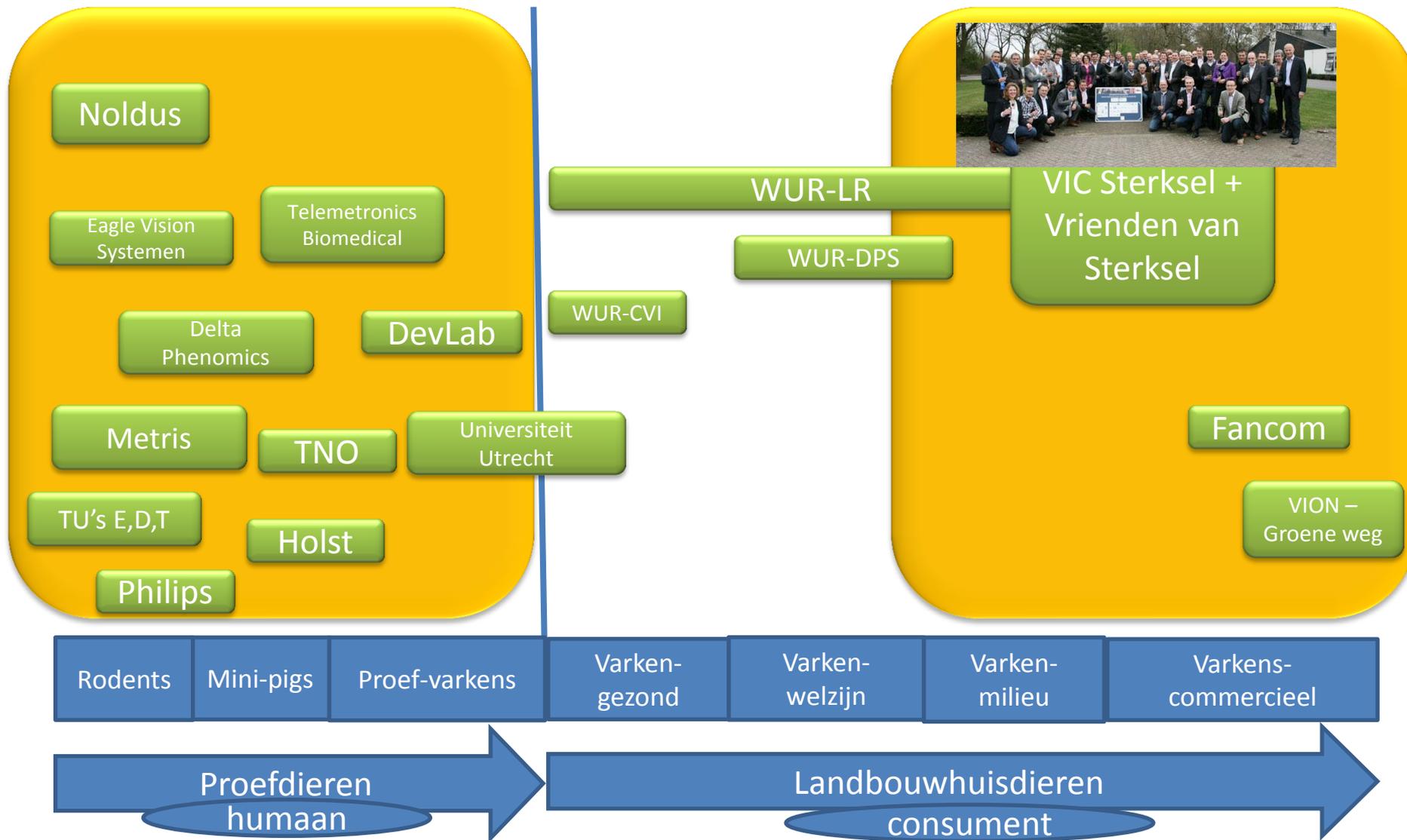




A sustainable Living Lab for research and development of measurement and analysis systems for brain, cognition, physiology and behavior

i3B-4-Livestock

netwerk van samenwerking i.o. varkenshouderij



i3B Animal Lab for Pigs

- Wageningen: Dierexperimenteel Centrum



- VIC – Sterksel



- <http://www.youtube.com/watch?v=4qKAdMciLJo>

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WAGENINGEN UR
For quality of life