

## Seminar Sino-Dutch Business Development

Application and Valorisation of the following research lines

1. Elderlycare & domotics;
2. Male grooming
3. Smart farming
4. System integration
5. ID3AS
6. "Keep the dialogue ongoing". The role of sustainable business cooperation's in Sino-Dutch Business relations

### Ad.1 Hanze & Saxion University of Applied Sciences Portfolio International Health Care

Training and education in health care is a topic that is in demand from China. Chinese delegations regularly visit the Hanze University of Applied Sciences to orientate themselves towards purchasing courses. In this regard with domotics, cooperation is sought in the technological field as well

#### Education and training in healthcare

There is great interest in the Dutch healthcare model. This generally applies from management of healthcare; and for the fields of expertise areas as nursing and more particularly to elderly care, physical therapy, and dementia.

#### Technological care support at home and in care homes: Domotics:

Although Domotics technology is now at a high level in China in terms of technology, questionmark is the connection with IoT and the link with modern systems of data collection, data processing and information creation within the care itself.

Care professionals in China are not yet optimally trained in the use of home automation, with all the associated applications. The wish now is to bring healthcare professionals in a better position through training. This can be achieved through applied research as set up at the Tangenborgh Group in Emmen, which could serve as a best practice in this regard. Tangenborg is going to start a project with Hanzehogeschool in the field of applying home automation for elderly people suffering from dementia

In summary we want to discuss:

- 1) Courses and training in the field of nursing (General); elderly care, dementia and physical therapy.
- 2) sending Chinese students to Groningen, Deventer
- 3) training in the use of home automation and application of the technology in care homes, or in residential communities for seniors
- 4) international cooperation, we strive for crossovers between schools and research centers, Hanze & Saxion and the possibility of organizing applied research at the Chinese organizations has been agreed. We now also have a Dutch healthcare organization that can serve as a model, and where we will also conduct research. (Tangenborgh from Emmen)

### Ad.2 Male grooming.

#### Background

The Chinese economy has for long been one of the fastest growing economies in the world (next to Brazil, Russia, and India). In parallel, various societal transitions are observed. Family values are gradually replaced by individual values, a process labelled as individualization. Instead of leading to a

sense of selfishness, a growing social awareness is taking shape at the same time. Still, the sense of self of the Chinese individual is strongly determined by his / her social context.

The future of the Chinese market is the emancipation of the male consumer which is reflected in changing grooming habits. This leads to an increase in both autonomy and self-esteem. More general features of the Chinese market are (1) youthfulness, (2) flexibility, (3) highly networked, and (4) highly responsive to Key Opinion Leaders (KOL). E.g., in narratives on grooming, brands such as Philips play a key role where it comes to defining the perception of the self for young men (25-35 years).

Still, one's identity in China is determined by the social context of the individual. Individualization does not equal selfishness. Possible reasons for the situation that are observed in China may very well be the non-existence of civil society. Besides your family, there only is society at large. Individuals need to tie themselves to all sorts of networks in order to 'survive in society'. In a way, consumer products become devices that provide identify or are seen as a prelude for transformation.

In terms of business activities, the transitions observed lead to the question what this means for engaging with Chinese society. No longer are products perceived as 'just products'. Instead, we observe a shift towards societal consciousness's and how a product fits into that image. In this way, products may very well become bearers of well-being or even care in the hands of their users.

The first research project, business models in societal transitions, within the context of male grooming. This project is more generic, with the aim to explore the business context of which Philips is seen as our main source. More over in a later stage it will fit in the field research for Philips in China.

So the project itself has several facets, including mapping the consumer preferences of men between the ages of 25 and 45. Aly Abdel Halim will make a first step, then we will organize qualitative interviews via the research line of Derek. See appendix for his CV and a short description of the assignment.

### Ad.3 Precision agriculture - Smart Farming/ agricultural systems.

Dr.Ir. Corné Kempenaar; Eisse Luitjens. Precision agriculture or Smart Farming means that plants (or animals) get precisely the treatment they need. A range of forms of technology are used to this end, including GPS, sensor technology, ICT and robotics. Technology can assist in strategic decision-making at farm level as well as with operational actions at plant level. This allows production to be optimised and means we can work on more sustainable crops. The big difference with classical agriculture is that rather than determining the necessary action for each individual field, precision agriculture allows actions to be determined per square metre or even per plant. In order to achieve this, sensors are required to record observational data from the crops and/or the soil (Observation). On the basis of the sensor values, specific software with decision rules and models is used to ascertain the condition of the crop or soil and any deficiencies or needs (Diagnostics) and determine whether location-specific treatment is necessary and if so, which (Decisions). Hanze & Saxion university of applied sciences focus on cyber Physical systems which support and facilitate smart farming as described.

Heinrich Wortche: More precisely it is about smart connections and data to information level (The 5 c Architecture for cyber –Physical systems)

Furthermore we stand for the forming of consortia in order to align SME, universities toward China. E.g is The project smart arable farming in North NL, stimulating interactions, cooperation's and

projects in which farmers, agrifood companies, tech. startups, knowledge institutes and education work together. HUAS wants to test the usability of inexpensive sensors. Introduce an intelligent layer into the field, measure soil retention location-specific



#### Ad. 4 System integration

There is a huge spread in the projects in which Heinrich, Jan and Jan Willem collaborate. Subjects range from studying domotica in the process of dementia in elderly care, to the transition from a collectivist society to a more individual society, both within the realm of social scientific research. Moreover, physical, biological and economical processes of change - for instance sampled by sensors- may also form the heart of the applied scientific interest of the team. The common thread is formed by the dynamic system description of the change processes over time. These are sometimes (within certain limits) linear, but much more often there is complex non-linear coherence, which, however, runs according to patterns (and therefore contains systematic components). Emergent properties, instead of determined linear chains. Modern data analysis techniques and insight into system thinking form the core. We work with beta talents, including IT specialists trained at ItVitae, in the Beta lab of Marcel Hurkens.

#### Ad. 5 ID3AS

ID3AS conducts several innovation processes with international consortia of companies and research institutions in which sensor technology, data, data analysis and IoT are central topics that are applied in different domains. During the meet-up, knowledge is exchanged on international cooperation in this case between Germany and the Netherlands, which could be extended towards cooperation between China and the Netherlands, data management and sensors that meet their own energy needs. Furthermore, various projects are pitched and there is the opportunity for match making with the various participating companies and the exchange of experiences.

#### Ad. 6 Groningen Confucius Institute “Keep the dialogue ongoing”.

The role of sustainable business cooperation's in Sino-Dutch Business relations. Groningen Confucius Institute aims to stimulate mutual understanding between China and the Netherlands. There is a specific need for both Dutch and Chinese individuals or organizations to get guidance on achieving better understanding of each other's cultures and societies. By combining our knowledge at GCI, we are able to offer cultural workshops and consultancy services, which bring you closer to the world you are about to explore.