A global vision of ageing

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The first session of Track E European Policies was chaired by Maggie Ellis of the London School of Economics. Maggie welcomed the audience and explained the rational of the session: What are the policies related to the ageing population in the US, Japan and Canada in the area of research (investment). Which market barriers have to be overcome and how does the market look like in the different countries? Taking the demands of the society into account: Which infrastructure and funds do we need and how can we share our knowledge to really make a change happen?

In the first presentation **Misha Pavel**, Director oft the NSF in USA and Prof. at the Oregon Health & Science University gave some figures about the health and healthcare crises in the US: The US healthcare system has the highest expenditures wordwide (16% of its GDP), 50% of the Americans have one or more chronic diseases and the patients are getting younger and younger. Soon 30% of the population, mainly non-hispanic white Americans, will be over 65+, this dramatic change is called Silver Tsunami. The spending on health is twice as high as compared to other countries. The strategy of the government now is to bring technology into healthcare in order to transform the system, focussing on homecare and wellbeing to enable networks. The market barriers at the moment are clearly the reimbursement scheme. The doctors are paid for seeing a patient, the more, the better and more expensive. The health records of the patients are only seen as evidence scheme for paying the expenditures instead of measuring the health status of the persons and providing them with full access to their data. Here a workflow integration in necessary. The new SilverNet Initiative will provide long term studies on a bigger sample and offer collaboration opportunities on that.

The second presentation given by **Heidi Wilson** from TELUS Health Solution, Canada was entitled mHealth is hard. It was about modelling of the new eHealth and healthcare with the boundary condition of being highly mobile, stakes are high and misaligned incentives so far. In a field trial 7.00 homecare workers have used mobile apps which require new staff for training. It was hard work for five years to make it a success. In a general model it can be expressed in one simple formula "Q x A = I", where the product of Quality and Acceptance

generates the Impact. The economic earnings can be measured in clear figures. Based on this calculation and the above mentioned field trial this can save 3 billion CA$ per year or ,.000 CA$ per Canadian under the assumption that 40% of the registered carers use it.

In the third presentation **Thomas Bock**, Prof. at the Technical University of Munich and at the University of Tokyo gave an insight into the Japanese culture. Due to Shintoism the elderly are highly respected and addressed in a specific way. Family care comes first; a care home is seen as home of care. Life support systems are tested since 1980ies with a high acceptance of ICT (integrated toilets, lifters, etc.). In the Wabot House smart home technology is combined with robotics that are devices moving around. Distance and strangeness are the main criteria for the reception of a robot in a changing environment (e.g. the Sony AIBO robot dog during a tea ceremony, in the sleeping room or outside the flat).The U-Japan strategy in the city tries to connect everything with information (e.g. a stick with an RFID chip to tell you where you are.) and is part of the Ubiquitous Network Society Strategy 2016 which also includes anime & cyborgs as well as exoskeleton and other aspects of mobility.

In the following discussion Maggie commented that Japan has the longest and most expensive hospital stays because the hospitals are frequently owned by the doctors running the hospitals. Then there was the question of business models and breakthroughs in the different countries respectively how far apart form the market the products still are and what the press reputation is nowadays. Heidi answered in Canada it is a problem of implementation. Afterwards home care services should be available for 57 CA$ per month. On the other hand a helicopter service for patients nearly failed because it has been evaluated 50-50 but this due to the human factor and not as service. If an implementation fails, not always the concepts do so too.
Misha repeated that as long as the doctors in US are paid per visit and not for prevention there are no incentives to change the system. The whole programme needs to be evaluated not only the technology should be tested.
Thomas told us that the robots are available for about 500 €, the integrated toilets for about 3,000-5,000 € and some micro-systems in a tea pot for tracking activities of daily living at about 50-100 €, but of course you can also get luxury editions, too.

A comparison of healthcare with banking shows the differences: healthcare is not available everywhere and transferable from one country to another. It is a specific industry with different coordination, workflows and privacy aspects. IT skills are generally system oriented and not application oriented as needed healthcare. In Germany a nurse wants to take care of the people and communication with them and trying to understand an IT-tool. On the other hand

you have to pay 38 € per hour for a nurse but the nurse herself only gets 10 € per hour. So there is a high potential for autoimmunisation of the documentation of treatments.

Maggie gave us another example from Scotland: Nowadays the health service is free at delivery, also in the rural area (100 miles to the next hospital). If they continue with this situation in 30 years all young people will work as carers in the health system for the rest of the population due to the demographic change! This is impossible. So they bindingly introduced tele - care and tele - medicine some years ago which already now saves 3 days of hospital for each person aged 75 years and over.