

## **The catalogue of disasters of the futures researchers from Tel Aviv**

**Israeli researchers are taking part in an EU project aimed at creating a list of wild cards in order to deal with the unexpected more intelligently**

By Assaf Shtul-Trauring, Haaretz, 21 May 2010  
(Informal translation by ICTAF)



From left to right: Drs. Yair Sharan, Aharon Hauptman and Yoel Raban. “The reality of life is that we are always surprised”. Photograph: Daniel Chechik.



Volcanic eruption in Iceland, last month. Photograph: AP.

Let us assume that an extreme scenario will come about: within a few decades, scientists succeed in developing a technology for reading and broadcasting thoughts between people based on chips that scan and process brain waves and remotely communicate with one another. How would such a development impact on society, the economy and the government?

Future research – or more exactly, futures research – has become an inseparable part in the shaping of public policy and commercial activity throughout the world. Most foresight studies are concerned with mapping dominant trends for the next three decades in fields such as demography, technology usage and consumption habits.

Until recently, the discipline has not paid serious attention to mapping extreme scenarios, such as advanced brain scanners, or, on the other hand, the eruption of a volcano in Iceland of this year.

Only in recent years has a professional endeavour got underway to deal with developments and events at the shadowy margins of the dominant trends, otherwise known as extreme scenarios. These are scenarios that, despite their low likelihood, could have significant social impacts were they to come about.

Unlike in the USA and in Europe, the new and ambitious field of forecasting has not taken root in most companies and institutions in Israel. However, it is well represented in research. Israeli researchers at the Interdisciplinary Centre for Technology Analysis and Forecasting at Tel Aviv University (ICTAF) are currently involved in an EU-funded initiative called iKnow, aimed at creating an internet-based catalogue of extreme scenarios, known in professional jargon as “wild cards”, as well as a database of “weak signals” – early signals of events that might come about, which, if tracked, might help to predict their occurrence.

### **The cost of futures research: 900 thousand Euros**

The project, carried out by research teams from Israel, Britain, Germany, the Czech Republic and Finland, was launched in November 2008, and is due to be completed at the end of 2011 at an overall cost of 900 thousand Euros.

The Director of ICTAF, Dr. Yair Sharan, said that “iKnow aims to shed light on and amplify areas that we do not tend to pay attention to in our everyday lives. The idea is to give free rein to weird and wonderful ideas so as not to miss any possibility that might come about and leave us open-mouthed”.

The project’s online catalogue currently includes 164 “weak signals” and 257 “wild cards”, including: personal air travel become widespread, a neo-fascist leader being elected in an EU country, nuclear fusion being conducted at room temperature, the development of artificial intelligence, and the disintegration of the EU.

The Israeli team has proposed a number of wild cards of its own, including Israel and the Palestinian Authority joining the European Union as part of a final status agreement, and a dramatic growth in people’s leisure time as a result of the penetration of new technologies into the workplace.

According to Dr. Aharon Hauptman, a senior research fellow at ICTAF who is taking part in the project, “The reality of life is that we are always surprised. There was a global energy crisis after the Yom Kippur War? The world was surprised. Everyone was convinced the world was going in the direction of satellite communications? Suddenly, the iridium project collapsed and the world turned to cellular technologies. Everyone thinks the economy is flourishing? Suddenly there is an economic crisis. These are things that you don’t know that you don’t know. We live in an uncertain world, but we should try to create systems that minimize the negative impact of these surprises, or in order to enhance their positive impact, in the case of scientific breakthroughs, for instance”.

## **Unrealistic scenarios by any standard**

The iKnow project is based on extremely simple methodologies, such as brain storming, in which researchers convene to discuss a particular subject. They are joined by experts on that subject and together raise a large number of scenarios. Later on, their suggestions are uploaded to the project's website.

The scenarios are then classified and ranked by an expert survey, known as a Delphi survey, in which scientists and researchers are asked about the chances that specific technologies will come about or the likelihood of social and economic forecasts in their field of expertise. According to Dr. Hauptman, "It is a survey that is carried out in two rounds. The idea is that you collect the answers from the first round and show them to the participants and ask them to re-evaluate their original answers". Comparing these results to the results from the first round means that the researchers can present updated evaluations and a more sophisticated consensual ranking of the forecasts.

Dr. Yoel Raban, a senior research fellow at ICTAF, explains that "this is all meant to contribute to the European Framework Program so that it can identify areas of research that are not dealt with, because they are under the decision-makers' radar".

The iKnow project is being conducted as part of the European research Framework Program, which got underway in the 1990s and is now in its seventh phase, with each phase lasting a few years. Israel joined during the fourth Framework Program, and today it is the only non-European country in the program. According to Dr. Sharan, "The aims of the program are to make the EU more competitive vis-à-vis the US on the one hand and Japan on the other, to make Europe a world leader in certain technological fields so that it can compete with all other large bodies, and to heighten contact and cooperation between European countries".

On the iKnow website there are a number of scenarios which by any standard would seem to be unrealistic, such as the realisation of religious predictions that the world will end in December 2012. When Dr. Sharan was asked about this, he admitted that he had had a number of arguments with his international colleagues about some of the proposed scenarios. At the same time, though, he reiterated that, "Right now, every partner can contribute whatever he sees fit. If there is a team overseas that decided that this is a possibility, then at this stage there is nothing to stop them. During the next stage, though, when we carry out a large-scale expert survey and the research team carries out a thoroughgoing evaluation, scenarios such as this will most probably not be included in the research findings".

How do you measure the success of a project whose main aim is to identify scenarios with a very low probability of coming about? According to Sharan, "iKnow will have succeeded if it warns about scenarios that might eventuate in the coming decades and thus contributes to decision-making processes in Europe. In contrast, if a significant event takes place that the project did not forecast, then, to a degree, it will have missed its target".