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The additional benefits of setting up an energy security centre

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ABSTRACT

An Agreement of Cooperation was concluded in 2008 on the setting up of an Energy Security Centre amongst the Hungarian Ministry of Defence, the Ministry of Economy and Transport, the Ministry of Foreign Affairs, the National Office for Research and Technology and the Prime Minister's Office. This paper summarizes the findings for the setting up of the Centre and creating the necessary conditions required for its operation. The main idea is that qualitatively new conditions to facilitate effective problem solving to meet the demands of mankind for energy are needed. The key part of this work is the creation of the structures of a global problem solving network. It will function as a network of energy security knowledge centres (KC). A number of KC with different specialisation will be built on these structures, resulting in a global network with new synergies, which will in return foster the development of new capabilities and the emergence of new way of thinking. The paper discusses the results related to the application of a global approach to energy security and points out the necessity of regarding energy security and environmental protection as integral parts of the system.

1. The need for an energy security centre

The functions of an energy security centre, to be outlined below, should meet an objective demand at the level of society. This demand is related to the creation of conditions used in the implementation of political and economy-driven decisions aimed at meeting, as efficiently as possible, the energy needs of the society at any point in time. The task (of meeting these needs) is rather comprehensive. It involves at least four types of challenge to be addressed:

- The problem of energy security has evolved to reach a level of unmanageable complexity.
- The issue necessitates a strategic approach.
- Problems related to energy security need to be explored in a global context.
- A clear vision of energy security is blurred by false beliefs and ideological anachronisms generated by distribution-driven alliances lobbying for group interests both in policymaking and in the economy.

A successful response to these challenges requires the creation of a new institution. The word 'institution' should be stressed here. The need for such an institution is the consequence of an objective social demand that needs to be met directly.

The creation of a new institution is essential as objectivity is a key requirement for such an institution to operate, which should be able to provide the required services impartially in helping find a solution to today's energy security problems that are becoming increasingly serious. The case for the setting up of an independent, new institution is substantiated by the necessity to fulfil requirements of a complex nature. This drive for complexity in problem solving is, firstly, the result of the fact that energy security has now become a global security issue. Secondly, the meaning of energy security needs to be interpreted in its broadest possible sense. Therefore, it has not been advisable just to use the narrow term of 'security of supply systems', a phrase whose paramount use today is particularly popular when talking about the defence of "infrastructure of critical importance". Repercussions of a rapid growth in energy use vis-à-vis energy demand – such as a cap on energy consumption in order to reduce the ongoing damage to the environment – need, among other things, to be explored. It is obvious that today there is no institution or organisation whatsoever operating from the perspective of total independence and with a capability of examining the problems of energy security in a complex manner, let alone other functionality-related requirements yet to be dealt with in this document.

To ensure objectivity, the Centre needs to be financially independent from the Government to prevent any direct pressure from that direction and it also needs to be independent from the

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business sector. One alternative of avoiding direct pressure from the Government – which is, obviously, the most practical-minded approach to this problem today – is the setting up of the Energy Security Centre in the form of an "autonomous, state-run public administration body".

Institutions are intrinsically different from business organisations and enterprises. In each case there is an organisational support mechanism to rely on, but while enterprises are players on the field of micro economy, institutions are part of the macro economy. "Institution is a term applied not only to organisations, but to the conduct of people working alongside these organisations." Consequently, to create and develop an institution is a lot more complex task than, for example, to develop an organisation.

The cultural contextualisation of institutional development is of considerable significance. Because of this, tasks related to the establishment and subsequent development of an institution should be integrated into "cultural development" programme packages. In this regard, we are proud to say that a programme package known as the New Security Culture Programme, which was developed in Hungary, provides the additional capabilities required to create the conditions necessary for the social approval of an institution designed to function as an energy security centre.

The first step of the establishment of the New Security Culture Programme was a lecture called "Security of virtual worlds" [1]. The context of this lecture provided the opportunity of attempting to present some aspects of the cornerstones of cyberspace security philosophy. The definition below has become the basic principle for cooperation, also included in the motto of the New Culture of Security Programme (Culture of cooperation – Cooperation of cultures): "*The relationship between those in the cyberspace and the institutions should be one where unilateral control and confrontation is replaced by cooperation based on mutual trust. In order for this precondition to become implementable reality, instead of hopeless and ineffective attempts aimed to control cyberspace communication, institutional resources should be shifted towards cooperation with participating communities and the exploration, localisation and elimination of "black holes" (coalitions with a non-public distribution technique used for the manifestation of partial interests).*" [1]

This basic principle was later confirmed by a pertinent OECD initiative with the "force of harmony" [2], a UNO decision based on this [3] and the "Act on Cyber Crime [4]", an act which was passed in the USA in 2002. Later I made a point of drawing public attention in various other publications to the role of cooperation in security-related problems [5]. Eventually, the launch in Hungary of the initiative called "New Culture of Security Programme" – based on the complex interpretation of the notion of security – took place in May 2007. It should be noted that the OECD initiative advocates the creation of a new culture of security mainly in order to address cyber security problems.

The procreation and the operation require an extensive international cooperation; its essential part is the cooperation on scientific and technological fields. In Europe, the EIT (European Institute of Innovation & Technology), located in Budapest, Hungary, may become the organization responsible for the coordination of international cooperation. Starting its operation in 2010, this new institution could easily assume such role besides its various other functions.

2. Basic functions

The conditions required for a substantially new institutional and infrastructural background are provided by think tanks and their global networks. It should be emphasised that not "every type" of think tank (i.e. a centre of some sort bearing that name) will be capable of performing the job required. We are of the view that the term 'think tank' applies only to those institutions that have a permanent capability for ensuring with efficiency the availability of three key functions at the highest level of available technology. These functions are as follows:

A) Fast and efficient output of new knowledge and information required for competent energy-related policy-making, energy-related developments, statutory environment, etc.
B) Acceleration of the acquisition of practical knowledge required for competent energy related policy-making, implementation of policy guidelines and for the identification of specific problems arising in connection with energy security.
C) Creation, maintenance and continuous improvement of a platform designed for the efficient transfer of knowledge; establishment of foundations with completely new characteristics, to be used in addressing energy security issues in order to provide best practice methodology.

The above functions clearly indicate that the centre in question would be a real energy security knowledge centre encompassing all the crucial functions and characteristics of a knowledge centre [6,7] of this type.

The most crucial basic function of the Centre would be to supply reality-based, credible information composed of quality content and in due time for decision-making and proper action to be taken for the security of energy to be ensured. This, however, falls short of being a condition that fully satisfies all related requirements. Information thus acquired should be used efficiently by decision-makers and those who eventually implement their decisions, in order to find the best solution to problems on their hands – in other words adequate knowledge should also be available. Due to the current situation characterised by conditions that do not cease to change, plus an ever-growing number of unresolved issues at hand, that knowledge needs to be acquired in an entirely different manner – much faster than ever before. Despite every effort aimed at increasing knowledge management efficiency, it is unrealistic to expect everyone to acquire the necessary knowledge. The transfer in due time of knowledge between those working on solutions to existing energy security issues needs to be ensured. We know from experience that this task is far from being trivial. The Centre, as a knowledge centre specialised in providing assistance in energy security issues, will be able to perform these tasks by assuming the functions described in more detail in the 'Concept' section.

All over the world there is a real need particularly in the field of security for carrying out knowledge centre functions as mentioned above among others particularly the second function (B) based on modelling, and simulation. For instance the National Exercise Simulation Centre (NESC) operating under the US Federal Emergency Management Agency (FEMA) was set up and opened these days (January 2009) to meet such requirement. It is worth reviewing the basic functions and services of NESC as they are close in many respects to the functionality of the Energy Security Centre and show well the benefits of the institutionalized application of simulation.

"The 2006 Post-Katrina Emergency Management Reform Act (PKEMRA) Section 664 called for the establishment of a National Exercise Simulation Centre that uses a mix of live, virtual and constructive simulations to:

- Prepare elected officials, emergency managers, emergency response providers and emergency support suppliers at all levels of government to operate cohesively.
- Provide a learning environment for Homeland Security personnel of all federal agencies.
- Assist in the development of operational procedures and exercises, particularly those based on catastrophic incidents.