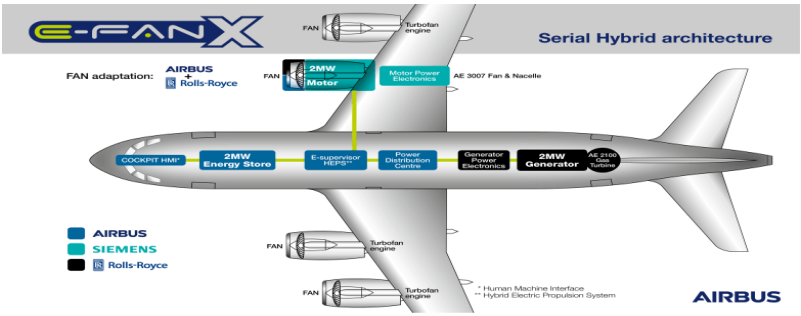


*Fig.1 Model of hybrid electric demonstration aircraft E-Fan X*

Each company in the alliance carries out its work and is responsible for it. Airbus is responsible for the overall integration of all components, the hybrid electric system and battery management system, as well as the integration with flight management.

Rolls-Royce will provide a turbocharged turbocharged engine, two megawatt generator and electronics power system. Together with Airbus, they will work on adapting the fan to an existing gondola and Siemens electric motor. Accordingly, Siemens will provide a two-megawatt electric motor and a power supply for it, as well as an inverter, DC-DC converter and power distribution system.

Consequently, the future of aviation – definitely for hybrid electric cars, and then for purely electric. The E-Fan X test engine will help you study the problems that arise in hybrid electric power plants of high power: thermal effects, electric traction control, height and speed effects on electrical systems, and electromagnetic compatibility problems.

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## FOREIGN LANGUAGES FOR SPECIFIC PURPOSES

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### PROBLEMS OF INFORMATION PROTECTION IN MODERN SOCIETY

The computerization of most spheres of education, technology and industry, as well as the rapid process of using computers in the daily life of a modern man has led to the

fact that the existence of a modern society can not be imagined without the constant application of information technology. Computers serve banking systems, control the work of nuclear reactors, distribute energy, monitor the schedule of trains and planes, operate spacecraft and much more. Computer systems and telecommunications determine the reliability and power of defense systems and national security of the country. Computers provide information storage, processing and providing it to consumers.

Widespread use of information technology in computerized information processing and management systems has led to an aggravation of the problem of protecting information from unauthorized access. Information protection in computer systems has a number of specific features that are related to the fact that the information is not attached to a single carrier, but can be easily copied and navigated through various communication channels. At the moment, there is a very large number of threats of information that are being implemented both by internal perpetrators and by external ones.

A radical solution to the problems of information security can be obtained based on the use of cryptographic methods that solve the most important problems of secure automated processing and data transmission. At the same time, modern high-speed methods of cryptographic transformation preserve the initial productivity of computer systems. Cryptographic data transformation is the most effective means of ensuring the confidentiality of data, their integrity and authenticity. Only their use, together with the necessary technical and organizational measures, can provide protection against a wide range of potential threats.

The growing importance of software and cryptographic protection is manifested in the fact that new problems arise in protecting computing systems from unauthorized access, require the use of mechanisms and protocols with a relatively high computational complexity and can be efficiently solved by the use of resources of computers.

The basic principles of information security is to ensure the integrity of the information, its confidentiality and at the same time accessibility for all authorized users. From this point of view, the main cases of security breach of information can be called:

- unauthorized access – access to information that is carried out in violation of the rules for the delimitation of access established in the information systems;
- information leakage is the result of an offender's actions, as a result of which the information becomes known (accessible) to entities that do not have access to it;
- loss of information – the action by which the information ceases to exist for persons who have the right of ownership in full or limited scope;
- falsification of information – intentionally distorting information that must be processed or stored in computer systems;
- the blocking of information – the actions resulting in the termination of access to information.

The emergence of global information networks such as the Internet is an important achievement of computer technology, however, with the Internet connected a lot of computer crimes.

The result of the experience of using the Internet is the weakness of traditional mechanisms of information security and gap in use of modern methods.

One of the important features of the mass use of information technologies is that to

effectively solve the problem of the protection of state information resource needs to the dispersion of measures to protect the data among mass users. Information must be protected in the first place where it is generated, collected, recycled. This principle is rational and efficient: protecting the interests of individual organizations is a component of the implementation of the protection of the interests of the state as a whole.

The problem of information security is due to the increasing role of information in public life. Modern society is increasingly acquiring the features of the information society. Information security is one of the problems faced by modern society in the process of mass use of automated means of its processing.

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## HR PLANNING AND EVIDENCE-BASED HR

Undoubtedly, the process of effective human resource management can be determined as one of the most complicated aspects in terms of running a business; nowadays, absolutely every company has a particular set of strategies on the road to solving problems and achieving required goals. For this reason, it is crucial to comprehend that there is a vast spectrum of different methods that can be used in order to increase the overall level of organization performance, including HR planning and also evidence-based HR. Organizational strategies are about creation/implementation changes and also evaluation of the manager's decisions regarding both long-term and short-term objectives.

Human resource planning ( HRP) is a permanent process of systematic analysis and planning, where the central geometry always revolves around achieving the optimum use of organization's human resources. Speaking more precisely, the main objective is to ensure the most appropriate fit between employees and their jobs, avoiding manpower surpluses (Railly, Peter). What is more significant, the HRP is divided into four key stages to maximize the chance of a successful strategy implementation; analysis of the present labor supply, forecasting future labor demand, balancing labor demand between employees and their duties, and also assist in achieving organizational goals. For this reason, the HRP has to be flexible enough in order to complete all short-term goals in time and, at the same momentum, change working conditions (business environment) to meet other long-term objectives. The process of planning begins with asserting and auditing the current capacity of human resources. Then, managers should analyze present conditions to clarify the company's strengths and weaknesses: for instance, a company has only 500 employees, does it enough for the future development? Such questions are merely necessary in order to understand the current labor pool and continue the process of HRP. When the analysis of present conditions is done, a company can begin focus on forecasting demand, depending on the company's strategic goals (Railly, Peter). The next stage is about striking a balance between supply