# COBIX SOFTWARE R&D Corp.

## IVF - Presentation

COBIX ARGE YAZILIM

Gelişmiş yazılım kolay kullanım

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# IVF MEDICAL EMBRIOLOGY SOFTWARE DEVELOPMENT

## Reason and Summary

In the interviews with U.K.F.C.A clinic in Cyprus, where the project came into being, there was a need for this center to write such a meeting, and in 2014 preliminary work was done. It was researched what could be done with the negotiations and requests made with the relevant to place, the information deficiencies in the existing software were determined as a result of the analyzes and according to these determinations showed to us; need a new software development.

Cobix IVF software, planned as a web application, was developed to be used in IVF centers and to increase productivity in order to facilitate all registration procedures. The Cobix-IVF Software program manages the treatment of ineffective sperm and oocyte patients. At the same time donor records are kept in this system. It is possible to keep these records with a lot of prescriptions that add value to the product, to automatically create transfer forms according to national language, to store frozen embryo donations and frozen sperm records in the same system as data. The software consists of a modular structure.

- Patient Registration and List
- Donor Registration and List (Donor photos and other donor information)
- Embryo Record and List
- Constructed Tests
- Polyclinic Evaluation Results
- Appointments
- Opu Records
- Infertility (Interfilite) Tracking Screen and List
- Sperm Bank

- Information on Sperm Freezing and Thawing
- Sperm Analysis (Semen Analysis)
- Transfer Information Form
- Information about Egg Freezing and Thawing
- Throwing Information and Statistics
- Last Ice Cream and Statistics
- Multi language (English, Turkish ... etc.)
- Patient Inspection Reminder System
- Accounting
- Manager module
- User management and role-based login
- Software administrator manual

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## R&D And Innovation Methods

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In the scope of our project, joint studies were carried out with the IVF clinics and trainings were taken in this center.

Experiments were carried out on the realized modules. We are expecting returns from the center at the point where verification of the results is achieved through comparisons. We have come to the stage where we can make improvements and revisions with user feedback in the direction of end user expectations.

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## Innovative Aspects Of The Project

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Our project is to develop new software in accordance with today's technology, to be able to adapt to abroad as an indigenous software and to have this open source software, especially to create information that is not in our country but which we have in our own application. In order to prevented the manual reporting, we have worked on a wide range of auto-report uses within the system. The analysis is an example of an research and development project with the power to increase the power of scientific analysis within the program.

**Other innovative aspects;**

- We are building a MVC web application.
- We are speeding up the patient registration process.
- We are using the Entity Framework and we re using data modeling architecture.
- We are using the BI technology in reporting system.
- We are making automatically analysis.
- The appointment module integrates with the numerator system for people who come to our appointment.
- Each tube baby center with a cloud structure can provide access to this product if desired. We do not want to use the server-based system of our own ivf-centers or related places, we are organizing so that their cloud environment can only be accessed remotely by taking the product.
- We have designed an architecture that works with the central management system.
- The biggest difference and gain is that we use innovative information in our practice. We took features that are not in similar software on the market into the system.

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## Economic Contribution Of The Project

While it is the most important input, intelligence and creative power to produce software, there is no import input or high energy consumption in this production. This system, which will be developed as web by our company for the first time in Turkey and which contains cloud and BI support, will meet the needs of the target kit with the most reasonable costs as IVF software.

By reducing software imports, the economy will be improved, social well-being will be ensured, and reliable and sustainable economic dynamics will be caught. In addition, the employment opportunities created will contribute to bringing qualified health personnel to the business world and reducing unemployment.

Preliminary feasibility studies were carried out by way of innovative aspects of our project. There is no obstacle to the successful completion of the project.

The adequacy of the technologies to be used under this project has been researched. We have come to the conclusion that the software parts that will be developed using the specified technologies will provide the targeted productivity, compatibility and performance increase.

To put it concretely, the contribution of software to the newly developed businesses;

- An average 40% reduction in the cost of time spent on field operations
- An average 40% reduction in the cost of time and resources spent on benchmarking, follow-up, control and remediation activities.
- Up to 100% efficiency in data transfers with human power from one system to another with supported innovations

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## Commercialization of the Project

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**Domestic target market,**

The growing number of in vitro fertilization centers in Turkey are potential customers.
In addition, they can benefit from this system at the laboratories of the IVF laboratories at universities and hospitals.

**Overseas target market,**

This project and have a potential in America, Canada and Europe. We foresee that we will be more effective in this market especially after U.K.F.C.A, our project partner, is the first customer of the IVF center.

**Marketing Method,**

When we were planning two marketing plans,
- Sales with customer representative
- Direct sales
- Cloud Services

# IVF MEDICAL EMBRIOLOGY SOFTWARE DEVELOPMENT

## Schedule Of The Project

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**BUSINESS-TIME PLAN TABLE (Time spent on this job)**

| Project Steps | | AYLAR | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Work Package-1: Research and Preparation** | | | | | | | | | | | | | |
| **1.1** | Literature search: publication / patent / license search | | | | | | | | | | | | |
| **1.2** | Sample software comparisons | | | | | | | | | | | | |
| **1.3** | Medical Educations | | | | | | | | | | | | |
| **Work Package-2: Software studies** | | | | | | | | | | | | | |
| **2.1** | Preliminary Preparation and Concept Development | | | | | | | | | | | | |
| **2.2** | Detailed Analysis and Design | | | | | | | | | | | | |
| **2.3** | Software Development | | | | | | | X | | | | | |
| **2.4** | Reporting Studies | | | | | | | | | | | | |
| **Work Package-3: Testing, Verification and Testing** | | | | | | | | | | | | | |
| **3.1** | Testing And Documentation | | | | | | | | | | | | |
| **3.2** | Analysis and Work Area Experiments | | | | | | | | | | | | |
| **3.3** | Pilot Implementation Studies | | | | | | | | | | | | |

# IVF MEDICAL EMBRIOLOGY SOFTWARE DEVELOPMENT

## Project Personnels

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| Personnel Name / Surname | Occupation / Expertise | Professional Engineering Experiences | Tasks in Project | Time to Work in the Project (Month) |
|---|---|---|---|---|
| Aykut AKTAŞ | Information Systems Engineer | 9 | Project Manager & Software Engineer | 12 |
| Mehmet BİLDİREN | Computer Engineer | 4 | Software Engineer | 12 |
| Adil ÇETİN | Computer Engineer | 2 | Test Engineer | 6 |

***Reference Doctors***

- Dr. Ayşe Seval ERDİNÇ
- Dr. Canan KAÇMAZ
- Dr. Cüneyt HACIMUSTAFAOĞLU
- Dr. Bekir KILIÇ
- Dr. Nusret AKTAŞ
- Dr. Abdurrahim AKSOY