Engineering Product Design.

Introductory description of the process.

Nowadays the IT-component is an integral part of virtually any business.

To ensure a sufficient level of control over the IT-component for the business, an important step should be taken before starting the development of the product, before the very first line of code has been written.

Once the core idea of the product with an IT-component has been expressed in its brief form, the next step is the Engineering Product Design.

By “Design” we mean not only the visual and aesthetic component, but the engineering design, having visuals and aesthetics as just one of its multiple contexts.

The result of the Engineering Product Design process is a valid concept, elaborated out of the initial idea. This concept takes into account all the important contexts, not limited only to the technical ones, but reflecting both the business goals and user-needs.

It is represented in the form of wire-frames, accompanied by explanatory and sometimes technical notes and is also often referred to as the Functional Description.

A Functional Description is an important asset for any business project, as it:

- polishes and lines out all the details of the concept in the minds of project owners;
- makes sure that everyone is on the same page with the project scope;
- eliminates any undetermined aspects, allowing the developers to provide a lower estimation, not having to factor in any risk allowance for undetermined parts;
- allows providing a reliable time / cost estimation;
- allows for the creation of completely valid resource allocation plans;
- allows avoiding sunken investments by reducing refactoring of the evolving projects caused by the ever changing market requirements;
- controls all the business risks of the project, not only the technological ones;
- ensures the tight connection between information technology and the concept domain, which is often lost, as can be observed in many market examples;
- allows for the effective application of information technology to other contexts,

such as legal, moral, and security;

- prepares the field for creation of the USPs with predictable life-cycle, based on the mixture of IT innovation and business ideas;
- prepares the field for all post-launch business activities.

This level of documentation fully describes the final product from the interface point of view and answers the following questions:

- What does each screen of the interface, including all of its functional elements, look like?
- What can the end user do on each screen by interacting with the available elements?

Such Functional Description is usually composed by a software engineer who considers all contexts related to the system and uses engineering instruments to transform the idea into a valid concept.

We respect the time of our customers and offer 2 collaboration options for this stage:

a) Tight interaction and communication on every aspect of the Functional Description document, which is built in a team consisting out of the customer and our engineers. Requires quite a lot of time and effort of the customer, which is converted by the engineers into a valid concept.

b) Independent work of our engineers with all solution proposals being issued by our team and only confirmed by the customer before their elaboration. This option requires less time and effort of the customer.

There is no need to choose strictly one of the above options. They are just typical example cases for Startups and Corporate partners.

In both cases, the process does not require any technical background of the project owner. All technical aspects remain the responsibility of the engineers.

All the decisions are pre-supplied with multi-context information, which is easy to perceive and which represents a sufficient decision base.

Throughout the process we leverage our experience and best practices that have proven to be successful across the real business-cases of our customers to create a solution for your business.