



W e B R a

Business Intelligence Agent

WBIA

Project plan

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1. Excellence

The **computerization** of numerous occupations seems inevitable as innovation in information technology progresses. According to estimates¹ about 47% of US employment is susceptible to automation: while computerization has been historically confined to routine tasks involving explicit rule-based activities, with advances in Artificial Intelligence, Computer Vision, algorithms in Big Data, and other areas, automated software solutions are now rapidly entering domains reliant upon pattern recognition, and can readily substitute for labor in a wide range of non-routine cognitive tasks.

Customer relationship management is a vital part of the sales processes of enterprises of every size across Europe. By definition, CRM systems allow companies to interact with current and future customers, to track, organize, automate, and synchronize sales and marketing activities.

In this grant application we **propose to develop** a specialized **Business Intelligent Agent** that

- **suggests sales force actions** in CRM, by implementing sales promotion analysis, tracking of a client's account history for repeated sales or future sales;
- **automates sales force actions** in CRM, based on predefined rules;
- **automates help desk and customer services** by parsing incoming email and providing the appropriate response to a customer's inquiry;
- provides **automatic customer segmentation** in CRM;
- suggests **probable connections** between customers (family ties, friendships, employment, social media) **and**, based on this information, suggests **sales actions**
- **provides API integrations** with select data sources (Facebook, LinkedIn and others), **data capture tools** and **imports**.

1.1 Project objectives

The WBIA project aims to **help businesses to improve profitability** by achieving greater efficiency in customer relations, sales and marketing activities. By **applying Artificial Intelligence, Machine Learning and Big Data** technologies we believe the **automation** of tailored marketing, lead capture and sales allow enterprises to grow, to focus on their core business and **will result in increased revenue, competitiveness and customer satisfaction**.

- **The problem:** Mainstream CRM software (SAP, Microsoft) solutions are expensive for small businesses, rigid, and badly designed (have an "industrial" user interface). The more affordable alternatives, CRM SaaS (software-as-a-service) solutions focus on the US market, are built in the US, and may completely ignore specific European needs. Building and maintaining a CRM database, managing clients and leads is tedious manual work; the current CRM landscape is ripe for disruption.
- **The solution:** A new class of CRM software that is affordable, effective, reliable, and helps the sales force to focus on their jobs, by automating repetitive tasks, using artificial intelligence algorithms to streamline contact management and lead capture, and reveal

¹ http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf

deeper connections among current and possible clients and help discovering additional business opportunities.

- **Target market:** underserved CRM professionals within enterprises of any size who manage thousands of customer connections and business leads in oversized, bulky mainstream CRM solutions.

Objectives for the Phase I feasibility study:

- Determine technological viability.
- Determine economic viability.
- Market research.
- Develop an Intellectual Property Policy.
- Determine WBIA's potential as a product, in terms of competitiveness and growth.
- Develop a detailed strategic business plan.
- Determine exploitation opportunities (B2B, B2C).

1.2 Work Program

This project proposal is submitted for the call "H2020-SMEINST-1-2015", under topic ICT-37-2015-1 "Open Disruptive Innovation Scheme (implemented through the SME instrument)".

1.3 Concept and Approach

The business opportunity: the CRM software market seems ripe for disruption. The market leader has been losing money for years. The remaining mainstream CRM software solutions of the top 5 (SAP, Microsoft, Oracle and IBM) are expensive for small businesses, hard to customize, and are dogged by not being the main focus of their respective vendors. Smaller Software-as-a-Service vendors are struggling to differentiate themselves. Capturing even a smaller percentage of the growing SaaS CRM market could result in a sustainable business and a potential of future growth.

The current stage of development:

- (TRL1) **Webra Business Intelligence Agent** — Development is in Phase II of this proposal.
- (TRL1) **WBIA Data Integrations and APIs** — Development is in Phase II of this proposal.
- (TRL9) **Webra CRM Core** — already operational; integration with WBIA will likely necessitate further development.
- (TRL9) **Webra CRM Data Cleansing** — already operational; integration with WBIA will likely necessitate further development.
- (TRL9) **Webra CRM eDM** — already operational; integration with WBIA will likely necessitate further development.

Risks

- **Competition** – The CRM software marketplace already has huge incumbent players (Salesforce.com, SAP, Oracle and Microsoft) and they can easily outspend smaller

entrants to the field. They can either spend more on marketing, or add more developers to their CRM teams.

- **Competition** – There are numerous smaller CRM software companies that actively develop their core products and can adopt our approach – or build on similar ideas – in the future.
- **Overestimating** the possible **demand** for automation in CRM.
- **Underestimating** the **challenges** that arise during development.
- **Underestimating** the **time** and **budget** necessary to build a viable product.
- Perceived instability and/or unforeseeable changes in the economy and **regulatory environment** of Hungary.

Opportunities

- **Lean** startups that “underdo the competition” and focus on their own strengths (instead of adopting the thought processes and feature lists of their competition) have the opportunity to succeed and thrive in their niches, to carve out a special subsection of the market and later move to the mainstream.
- Our proposed product will be **differentiated by** the extensive use of **Artificial Intelligence** algorithms to offer **automation**, intelligent customer segmentation, prediction of customer needs, business intelligence, and sales **forecasting**.
- **Mobility** and mobile access to online services is essential in the near future². The ubiquity of mobile devices and reliable wireless networking is already a given. New devices and screen sizes offer new opportunities in software development in general, and the mobility **of the sales force** opens up new avenues in lead capture and customer relationships.
- The more successful current CRM SaaS solutions focus on the US market, are built in the US, and may completely ignore specific European needs. Our Webra3 CMS³, the framework under CRM Core has the built-in capability of serving **multi-language** content.
- **Sales intelligence** – With outside data APIs the WBIA will be capable to show the fullest picture of a client or a prospect, and their company.
- **Sales empowerment** – Advanced CRM systems should offer tools to empower salespeople to track the effectiveness of their sales pitches to prospects, remind them to upcoming tasks necessary to close deals, e.g. to follow up with specific segments.
- **Social sales** – Social media (Facebook, LinkedIn, Twitter) offer new tools for sales. They provide detailed background on prospects and existing clients, their location, education, work history, shared contacts or even personal details.
- **Social automation** – According to Maritz Research⁴, 70% of Companies Ignore Customer Complaints on Twitter, mostly because they lack the necessary resources. Meanwhile, clients who got contacted by the company as a result of their complaint were overwhelmingly happy. This field, we believe, has great opportunities for automation. We can **parse and evaluate Twitter mentions** or other sources of social feedback, and enable faster and more accurate responses by the sales and customer service teams.

² <http://a16z.com/2014/10/28/mobile-is-eating-the-world/>

³ <http://www.webra.hu/references/for-holiday-for-hungary>

⁴ <http://www.maritzresearch.com/~media/Files/MaritzResearch/e24/ExecutiveSummaryTwitterPoll.ashx>

Planned activities in the feasibility assessment

The Phase I feasibility study of WBIA will examine the project's feasibility:

- **Technical** and system feasibility — by **selecting** and **testing** Artificial Intelligence and data mining **algorithms** whether they can be applied in the context of CRM and determining their fit for the specified purpose and use, and evaluating their hardware and software requirements. Proof of concept development for main automation goals based on collected and/or publicly accessible data (for example Twitter messages).
- **Economic** feasibility — by detailed market study, cost/benefit analysis and evaluating pricing models, competition analysis.
- **Legal** feasibility — by assessing the extent of personal data collection and processing necessary to the viability of WBIA as a product, and the necessary steps to comply with national and EU law.
- **Operational** feasibility — by evaluation of requirements of the current degree to which the proposed WBIA development projects fits in with the existing business environment, business objectives and existing business processes (proposed method: survey of potential customers, interview of current CRM software users).
- **Scheduling** feasibility — by developing a detailed project timetable.

1.4 Ambition

Our proposed development, the Webra Business Intelligence Agent aims to create **a new class of CRM** software that is affordable, effective, reliable, and by relying on Artificial Intelligence and big Data algorithms it extends what is possible within and beyond customer relationship management.

There are **no direct competitors** that we know of currently: the existing comparable CRM products lack one or more key capabilities of our proposed system: our envisaged WBIA solution will provide **automatic customer segmentation, discovery of probable connections** between clients or prospects, **intelligent suggestions and automated actions** (e.g. automated responses via email or SMS text messages).

2. Impact

2.1 Expected Impacts

Users/Market

Worldwide CRM software totaled \$23.2 billion in 2014 (up 13.3% from 2013) according to Gartner, Inc.⁵ Salesforce.com is the current market leader, although their net income has been negative since 2012⁶. More than 51% of the market has been occupied by “Others”, which means the market still has potential for new entrants.

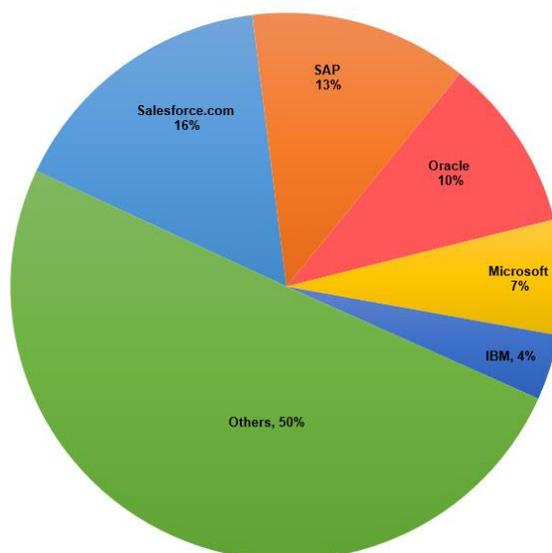
⁵ <http://www.gartner.com/newsroom/id/2730317>

⁶ <https://www.google.com/finance?q=NYSE:CRM&fstype=ii>

According to Gartner's report,

- the CRM market itself is growing, achieved double-digit growth rates in the past years;
- Western Europe was the fastest growing with a 15.2% increase in spending from 2012 to 2013;
- North American CRM sales were 52.9% of the worldwide market in 2013;
- 41% of all CRM systems sold in 2013 were SaaS-based. Companies of all sizes are looking for easier to deploy CRM systems capable of replacing legacy systems.

Worldwide CRM Software Spending By Vendor, 2013
Market Size: \$20.4B: 13.7% Growth Over 2012



Graph by Forbes.com. Data: Gartner, Inc.

The target user of WBIA, the **CRM professional**

- wants an easy-to-use, responsive interface to capture leads and manage contacts;
- needs rule based and AI-enhanced automation of repetitive, tedious CRM, helpdesk or customer service tasks;
- needs clean, up-to-date information and context, at the workplace and when on the move
- wants software that speaks her language, that is appropriately internationalized and localized;
- expects hassle-free migration from, and easy integration with other related systems.

Unique selling points of WBIA:

- **Automation** – by parsing incoming data (emails, tweets, Facebook posts), applying Artificial Intelligence algorithms WBIA is capable of responding to events automatically (or preparing an appropriate response for manual approval) with a success rate of at least 80%.
- **Actionable intelligence** – WBIA compiles a “full picture” of clients and prospects, and suggests tailored sales force actions.
- **Data capture and integration** – WBIA provides API integrations with select data sources, provides data capture tools and imports.

- **Predictive analysis** – by implementing sales analysis, the client's account history and social activity WBIA offers predictions regarding the client, and suggests appropriate actions to improve sales.

Main competitors and competitive solutions:

- **Highrise** – made by 37Signals, offers a similar approach as and integration with Basecamp (USD 24-149 / month).
- **SugarCRM** – a popular choice for many small and medium sized businesses (USD 40-150 / user / month).
- **ZohoCRM** – offers mass mail, forecasting and integration with Zoho's office suite (USD 12-35 / user / month)

Company

Webra International Kft. has been building fully web-based software since the 1990s: content management, workflow management, helpdesk, time tracking, tourism management, and CRM solutions. We handle complex business processes as well as enormous amounts of data effectively.

We expect WBIA to grow according to the following milestones ("I" as after implementation):

- **I+6 months** – 25 paying customers (~ €15k yearly income), API integrations
- **I+12 months** – .100 paying customers (~ €60k yearly income), +2 employees
- **I+24 months** – .400 paying customers (~ €240k yearly income), +2 employees

2.2 Measures to maximize impact

Dissemination and exploitation of results

We plan to **commercialize** WBIA on our own, **as** a Software-as-a-Service (**SaaS**) offering. At this point we don't expect any third parties to be involved in commercialization, but this might change in the light of the results of the Phase I market/viability research. We expect WBIA to go to market in mid-2017 (Phase I duration: 6 months, Phase II duration: 15-20 months).

We believe that in preparation to and during development we should share our findings regularly, by maintaining a developer blog, a company blog for the wider public, and active social media presence.

Intellectual Property, knowledge protection and regulatory issues

The Webra CRM Core has been built on the Webra 3 content management system framework that is protected by copyright, and the Webra name and logo are registered trademarks of Webra International Kft. We expect that by building on the Webra CRM Core, the WBIA remains under copyright, i.e. we don't plan open sourcing our code. Instead, we may offer a free to end users to facilitate their growth.

3. Webra International Kft.

We live and breathe the web since the 1990s. The first predecessor of our Company had been established 20 years ago in 1995 and was reorganized into its current state on September 29th, 2009 to comply with the needs of the speedily varying market environment with a more modern and dynamic corporate structure. Our software products handle complex business processes as well as enormous amounts of data effectively.

Products and activities

- **Webra CMS** is our multilingual, modular, highly reliable content management system (web portal engine), the core of many systems we developed in the last few years.
- **Webra CRM Core** is an integrated system to store customer contacts and personal data, with an innovative **eDM** module to send e-mail notifications and newsletters to targeted user segments, combined with automated data cleansing, integrations and APIs, statistics and analytics, and a customer loyalty program.
- **Applied research** — we focus on artificial intelligence, text and data mining in our research projects supported by grants awarded by the European Union.
- **nCard** — we developed and maintain an NFC-enabled, cash-free payment solution. Our smart cards, along with student ID cards issued to every student in Hungary, contain the necessary integrated circuits to build safe and convenient smart card applications. Our system allows contactless payment and access control in cafeterias, stadiums, festivals, transportation, buildings, and other facilities.

Select clients

- **Palace of Arts**, Budapest, Hungary — in cooperation with Crane LLC we delivered an innovative CRM system built on the Webra 3 content management system core. The main CRM module stores and manages personal and contact information, provides fast search, and offers detailed, advanced search capabilities in demographic information, location, customer loyalty and e-mail activities. In addition, the system has several built in functions to facilitate data cleansing, e-mail newsletters, statistics and analytics, and provides API integrations to the website and internal IT services.
- **Telenor** — we developed a GSM fleet tracking web application for the second largest mobile operator in Hungary, a subsidiary of the Norwegian multinational telecommunications company Telenor. Our solution included support for older feature phones using WAP.
- **Nestlé** — we had a years long cooperation with Nestlé, a Swiss multinational food and beverage company: we developed web apps and games for their Nescafé brand of instant coffee.
- **Tourism Board of Hungary** — we developed and run the central database of the Board (the National Tourism Database is a collection of about 25 000 tourism-related service providers, sights and events that is fed to partner sites via XML, and is maintained by hundreds of employees of the nationwide Tourinform network), and developed their foreign language websites on 21 domains and in 31 languages.
- **The Governments of Hungary, Slovakia, Poland, and the Czech Republic** — we developed and maintained websites of several government ministries in Hungary (Agriculture, Education, Social Affairs), provided services for government agencies

(National Census, several education agencies), and developed the website of Visegrad Group, an intergovernmental agency of Central European Governments.