

bitpark

Data Driven Solutions

Bitpark

Being **IT Consultancy and Custom Solution Development company**, we purely believe that ongoing improvement is the only way to gain success for the businesses in today's competitive environment.

Applying the **latest technologies** (Machine Learning, Cloud & Mobile, Big Data) we do whatever it takes to skyrocket the business performance.

Bitpark doesn't sell coding or time, we share our **experience, knowledge and IT problem solving skills**.



Main Focus



Custom **Business**
Solutions Development



Data Analysis &
Predictive Modeling



Data-Driven **Sport**
Solutions



Business Solutions Development

Business Solutions

Whether the company is just starting its business or has already achieved some results and wants to improve them, we at Bitpark translate our expertise in one of the following forms:

- Cloud Systems
- Mobile apps
- SaaS
- ERP Solutions (Custom/Odoo based)



Domains

Bitpark works in the following spheres:

eLearning



Marketplaces



Supply Chain &
Logistics



Enterprise Solutions



Startup focus

Working closely with startups we act not just as simple contractors, yet as a **Technological Partner**.

We help with:

- Market-driven product development (Lean Startup Development)
- Tools for ongoing customer's feedback gathering
- MVP architecture development
- Prototypes for investors
- Full technology assistance



Brødboksen

BRØDBOKSEN is an automatized supply chain e-commerce platform that offers a wide assortment of bread, spreads and other products that are delivered for breakfast.

The main aim Bitpark was to technically support rapid company growth and expansion to regions.



Optimizing online ordering system/workflow and improving customer experience



Automation of the delivery and logistics process (for 20+ cars and 1,500 orders per night)



Predictive Analysis for the supply chain optimization



Leggup

LeggUp is a US based business coaching marketplace and eEducation platform.

Here corporate managers can improve their financial, legal or strategy knowledge by having live session with best worldwide coaches.



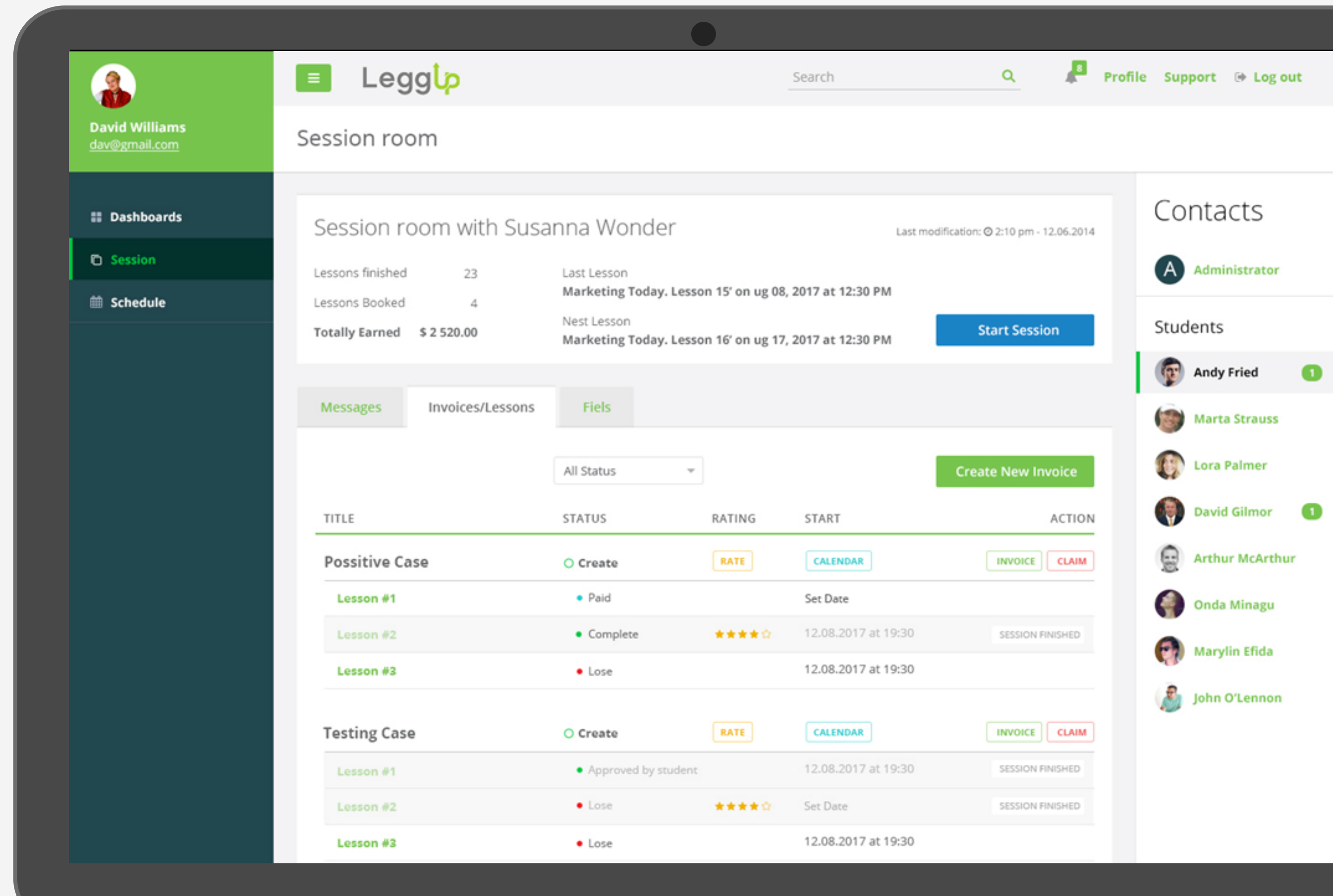
From-scratch **idea transformation** into the cutting edge technology solution.



Powerful **eEducation platform**: live video lectures, interactive boards, assignments and appointments.



Marketplace solution: billing, financial analysis, autocharging, various payment options (incl. bitcoins)



Japan Tobacco

JTI Office in Belarus, Ukraine and Kazakhstan was facing a problem of non-efficient retail outlets inspection. Each year the enterprise spent a huge amount of time and money to validate all points of sale.

Bitpark proposed to optimize the process with help of mobile technologies.



Specific **mobile app** for JTI agents decreased the inspection time per POS by 50%



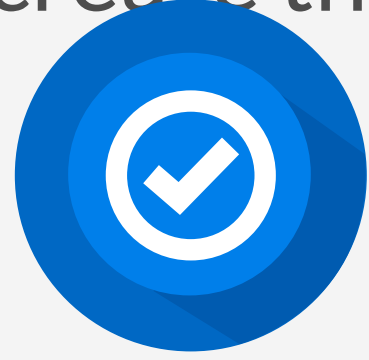
Cloud-based analyzing system verifies the main POS' KPIs and supports decision-making process for the managers.



SCA Elite

SCA is one of the major cable TV network in Australia. It's major revenue stream is generated by the TV ads.

Bitpark objective was to automate sales process and increase the efficiency of the department.



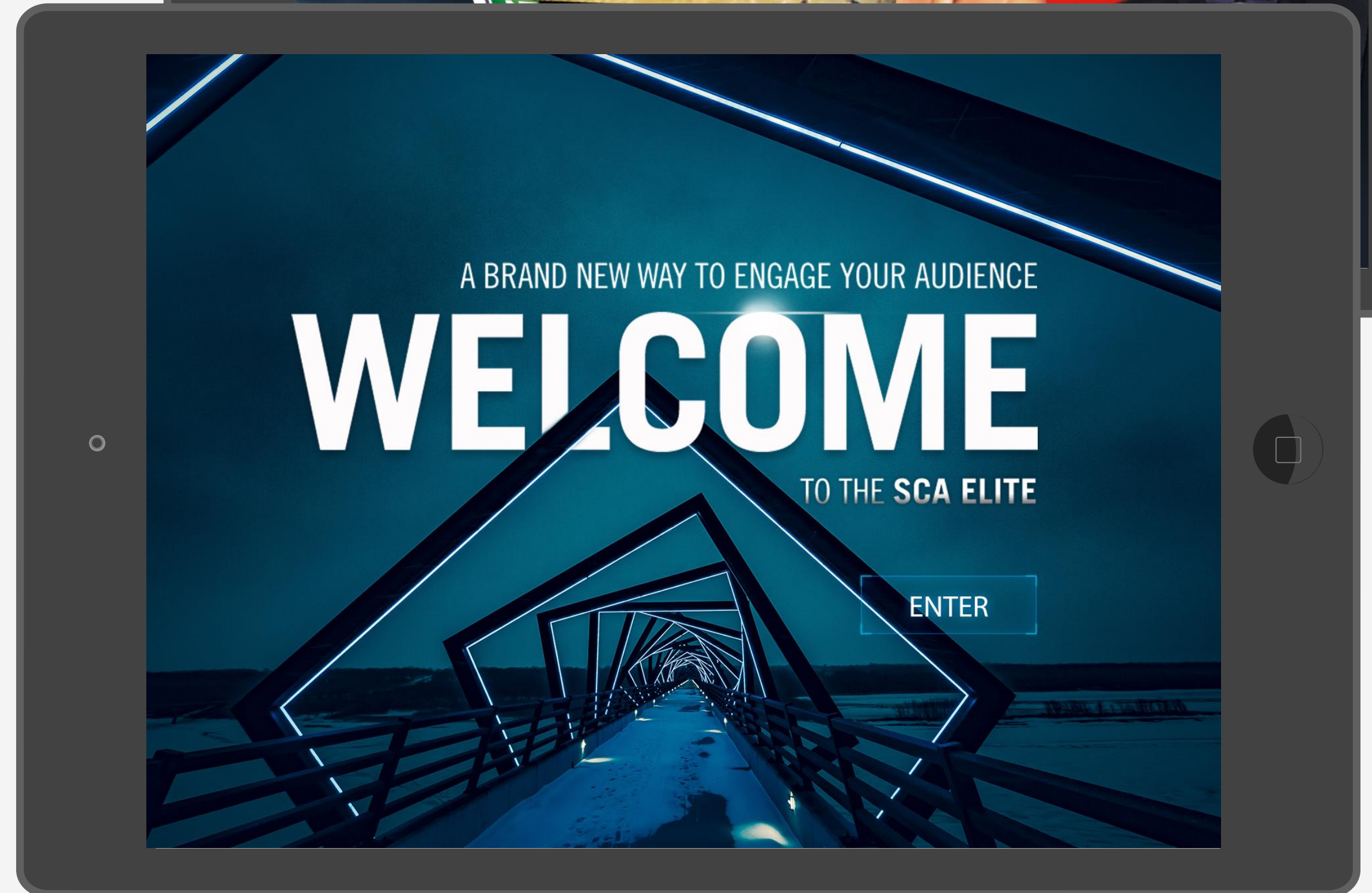
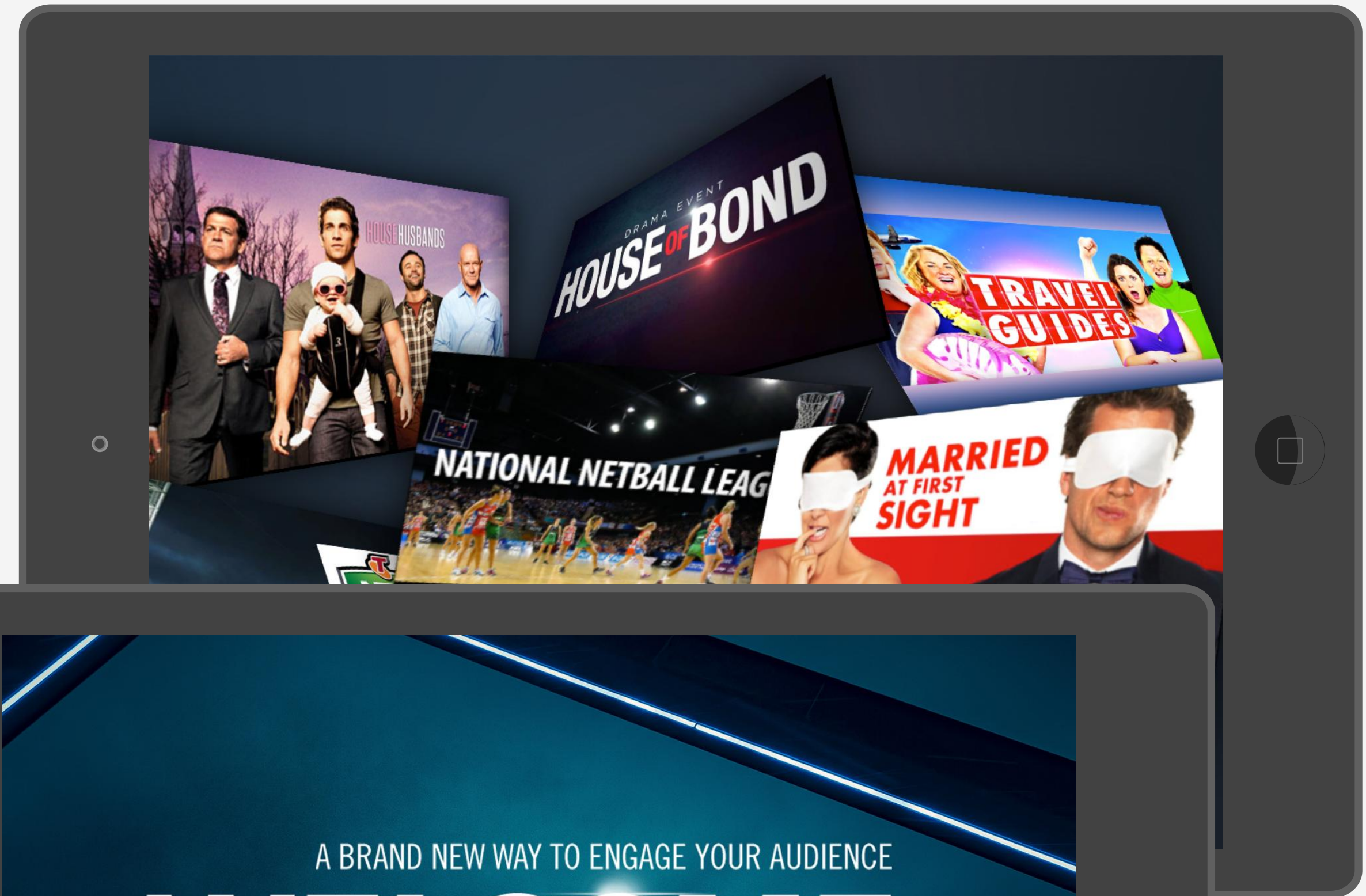
Creating specific customer-based selling workflow integrated into **interactive mobile presentation app**.



Cross-region **IT sales control** system for the management



Digitalization of the sales documents - contract can be set up via mobile app





Data Analysis & Predictive Modeling

Data Analysis

For us at Bitpark best business is a **clever** business. And to exploit all it's resources and set the efficiency to the maximum level we propagate Data Driven Approach which consists of 3 main steps:

- **Data Mining** - setting the effective automatic way of useful data collection and storing. Through a click of a button.
- **Data Analysis and Visualization** - the process of Data Architecture design, when our team creates both Visual and Statistical data models in order client's external and internal BI engineers could find all the bottlenecks in the existing processes. Through common sense and experience in the sphere, and no DB background needed.
- **Predictive analysis** - it is a deep analysis that allows to evaluate different factors or possibilities that could influence the business in the future.



Big Data Domains

Bitpark is working in the following spheres:

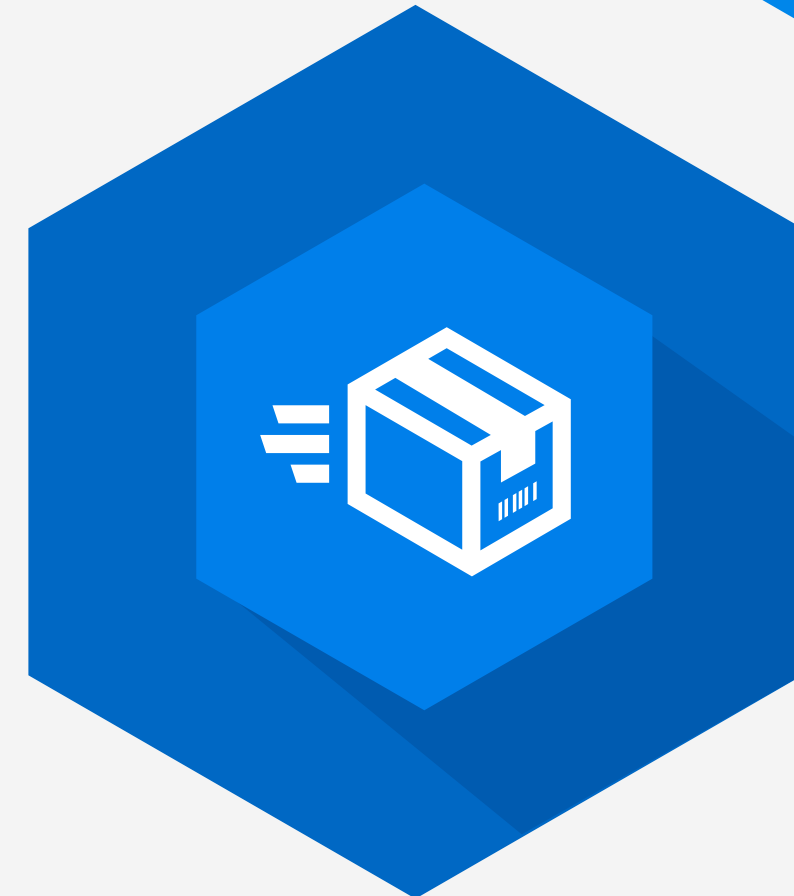
Banking



Marketing &
Sales



Supply Chain &
Logistics



Retail



Euroopt

Euroopt is one of the biggest retail chains in Belarus (344 stores) and leading grocery eStore.

Basing on the eStore Big Data Bitpark performed the following tasks:



Increasing the average cheque using up-sell, down-sell (basing on the historical user transactions)



Increasing the average cheque using cross-sell (basing on the predictions of the user's preferences)



Reactivating «sleeping» clients



Rossmann

Rossmann operates 1,115 stores across Germany. The objective was to predict daily sales per store for the period of 6 weeks ahead.

Having this information each store could optimize the operation expenses for the HR as well as plan effective marketing campaigns.



Collection & Warehousing of the enormous sized data (transactions per day per store for 1 year)



Implemented specific Machine Learning algorithm using Amazon tech stack



Achieved solution's prediction accuracy - 88%



Data-driven marketing

The client is the leading marketing agency in UK.

The main aim for the agency is to increase the ROI of the marketing campaigns by personalization and customized approach.

The task was to implement effective personalized ad campaign by using 3d-party data.



Collecting the email/phone numbers of the loyalty program customers



Collecting & Modeling the data from LinkedIn, Twitter, FB, Google+ and other 3d party sources



Customer profiling by social status, interests, lifestyle, working industry and etc.



Data-driven marketing

Bce

Bce

Bce

Count of ID

19,77 тыс

Interest Strength

- 0.2
- 0.4
- 0.6
- 0.8
- 1

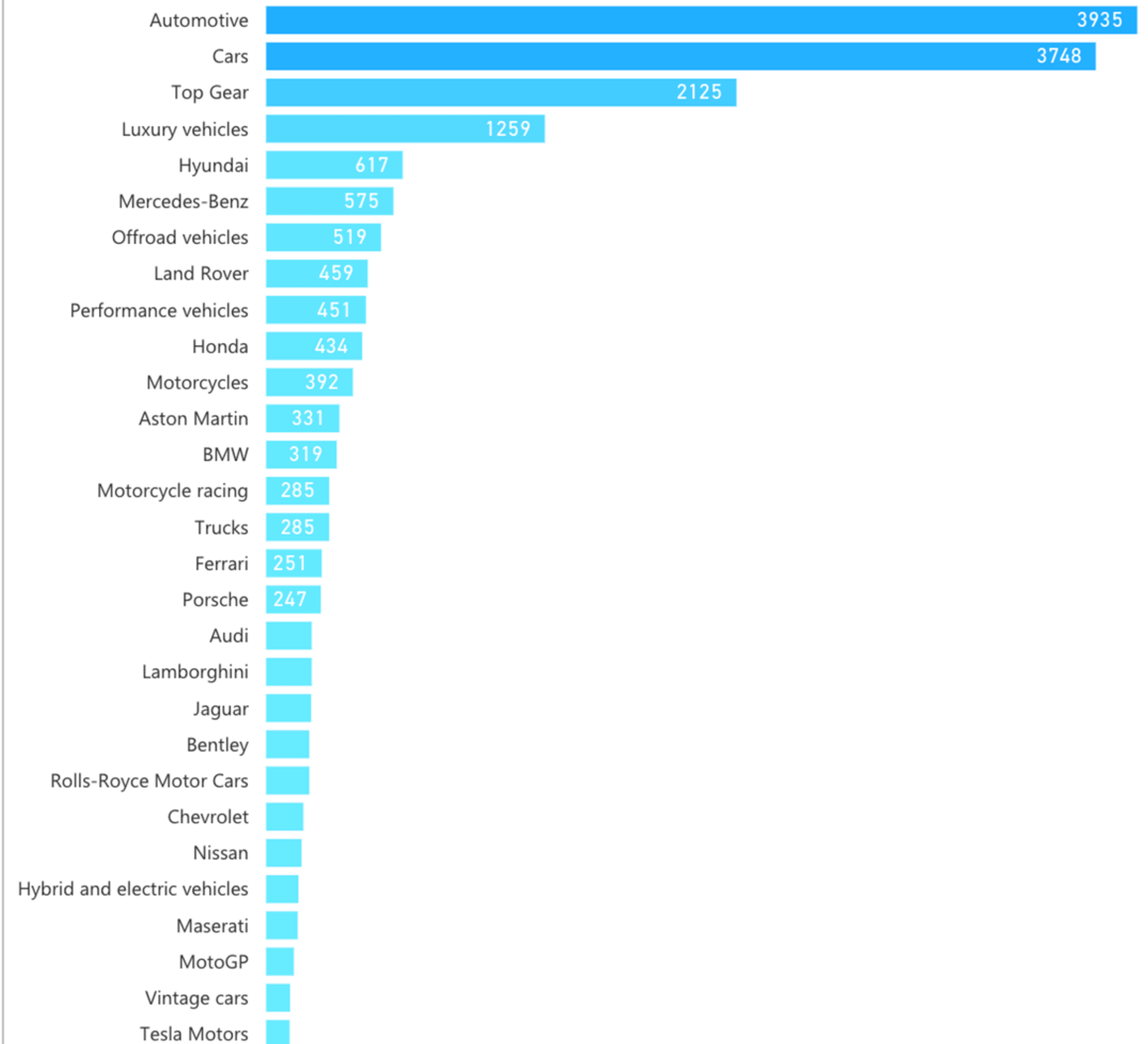
Interest Category

- brand
- community
- default
- event
- publisher
- show

Interest Topic

- (Пусто)
- Art
- Automotive
- Beauty
- Books and publications
- Business and careers
- Causes and activism
- Education
- Faith and religion
- Food and drink
- Gaming
- Government and politics
- Health
- Hobbies and interests
- Home and garden
- Life stages
- Music
- Nature and the outdoors
- News
- Parenting
- Personal finance
- Pets
- Popular culture
- Science
- Social media
- Society
- Sports
- Style and fashion
- Technology
- Television and film
- Travel
- Travel destinations

Interest Level (Normalised Ratio)



Astrakan Sales Improvement

Astrakan Agency is one of the leading Sweden photo producers. Their business model is based on the worldwide photo stock agencies, through which they are selling.

The main aim was to identify main correlations between photo naming and tagging, and increasing the popularity at stocks which drives high sales:



Data warehousing, modeling and structuring of 4-year sales transactions



Powerful sales/marketing instrument created via Dynamic Visualization



Statistical data analysis enabling to find main trends in naming, that affects sales



Astrakan Sales Improvement



Innovation Bank*

Innovation Bank is listed among top-5 retail banks in Belarus and is known for its high-tech approach.

Bank decided to utilize Big Data starting from the sales improvement of its main product - **“Smart” Card** - Credit Card for everyday usage that grants 2% cashback from the purchases in the *Partner* stores.

Card performance is tracked by the number of new users. That's why it was chosen to focus on increasing of this KPI and to organize a data-driven marketing campaign.

* name changed due to NDA



Innovation Bank: Approach



- Data **Extraction & Warehousing** of all bank transactions for 1 year
- Data **Dashboard** creation with sales amounts, dates, locations, user types, frequency, purchasing interests
- Retrieving the users who don't have **"Smart" Card**
- Analyzing the transactions of these users. Finding the useful **relations** - where they buy; how much; how often; **Partner Network**.
- Calculating how much money customer would **save** if used **"Smart" Card** (10,000€ per year in Partner Network will grant 200€ cashback)
- Creating **automated personalized email/call campaign** for each user, not having "Smart" Card. *"You are loosing 200€ per year not using "Smart" Card"*
- **A/B Testing** to identify exact sales increase



Sport Solutions

Sport Solutions



Record Pro

The goal of the system is to reduce the **traumatic danger** of the team sports and have an opportunity to identify and prevent it. Such predictive model works as the **insurance** in order to prevent top players getting serious injuries.



Mobile software for **on-the-field data collection**, integrated with the client's scientific data processing and decision-



support infrastructure
Data analysis platform with the opportunity to connect sport doctors and treatment for the athletes



Injury prediction model (basing on the sport medicine scientist research)



Driveline

Driveline is one of the first US **data-driven baseball training center**. Analyzing such parameters as ball trajectory, throwing spin, arm/bat move and ongoing athlete testing these sport scientists significantly increase the **hitting/pitching** skills of the players.



Data-driven training system for coaches and athletes (training plans and calendar, workouts planning, functional training)



Sensors support and Data Analysis & Visualization (athlete performance passport)



Video analysis tool and virtual coaching sessions



DataCycle project

The idea behind the project was to modify and innovate the way of professional cycling athlete training and to move from traditional subjective trainer way, to fully objective data driven approach. The architecture of the project was developed for the Belarusian Cycling Federation.



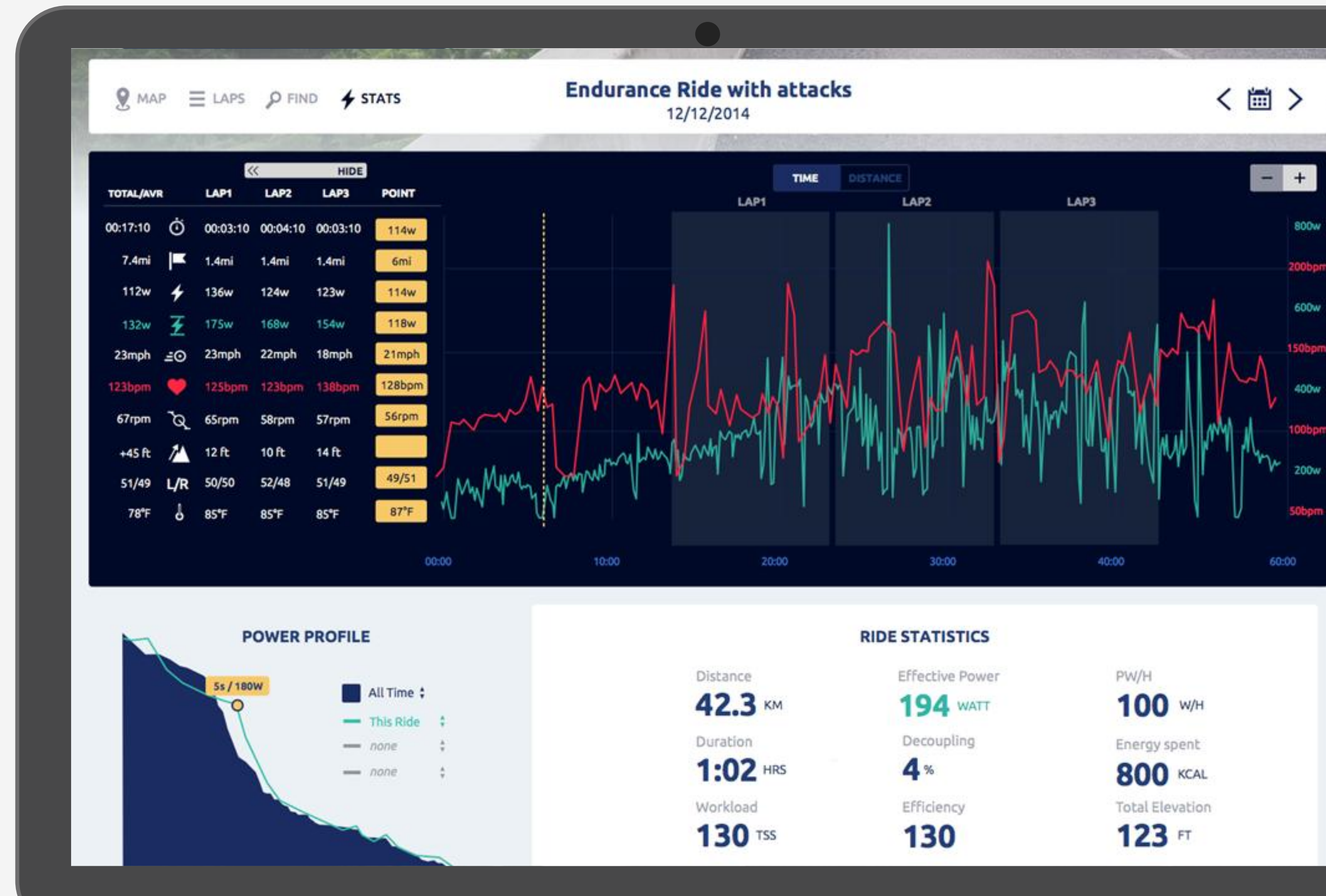
IOT-based data collection (heart rate monitors, power meters, cycling computers and other sensors)



Real-time athlete physical state analysis by the trainer



Workout & cycling route planning system based on the objective data



Tennis Selection

The system focuses on **young athletes** that train in sport schools. The ultimate objective for schools, parents and scouts is to **identify if the child is promising enough** to focus on the training or to leave/change the sport.

The system will help to recognize future top athletes



Data warehousing system for collecting all performance indicators of the young athlete



Comparison module and automatic leader proposition system (for scouts)



Video analysis tool for match analysis





Our approach

Process



Data Extraction & Collection basing on the *existing* and *3d party* sources (social networks, APIs and etc)

Data Modeling & Visualization, identifying **correlations, trends**, useful **personal data** (e.g. customer profiling or located cost bottlenecks)

Decision Support System implementation - **Predictive Analysis, IT Automation, Marketing Campaigns**

Data Confidentiality

Taking into the account that Banking data is very **sensitive** and **confidential** we propose the following options (should be implemented on the Bank's side) how to keep the security on the highest level:



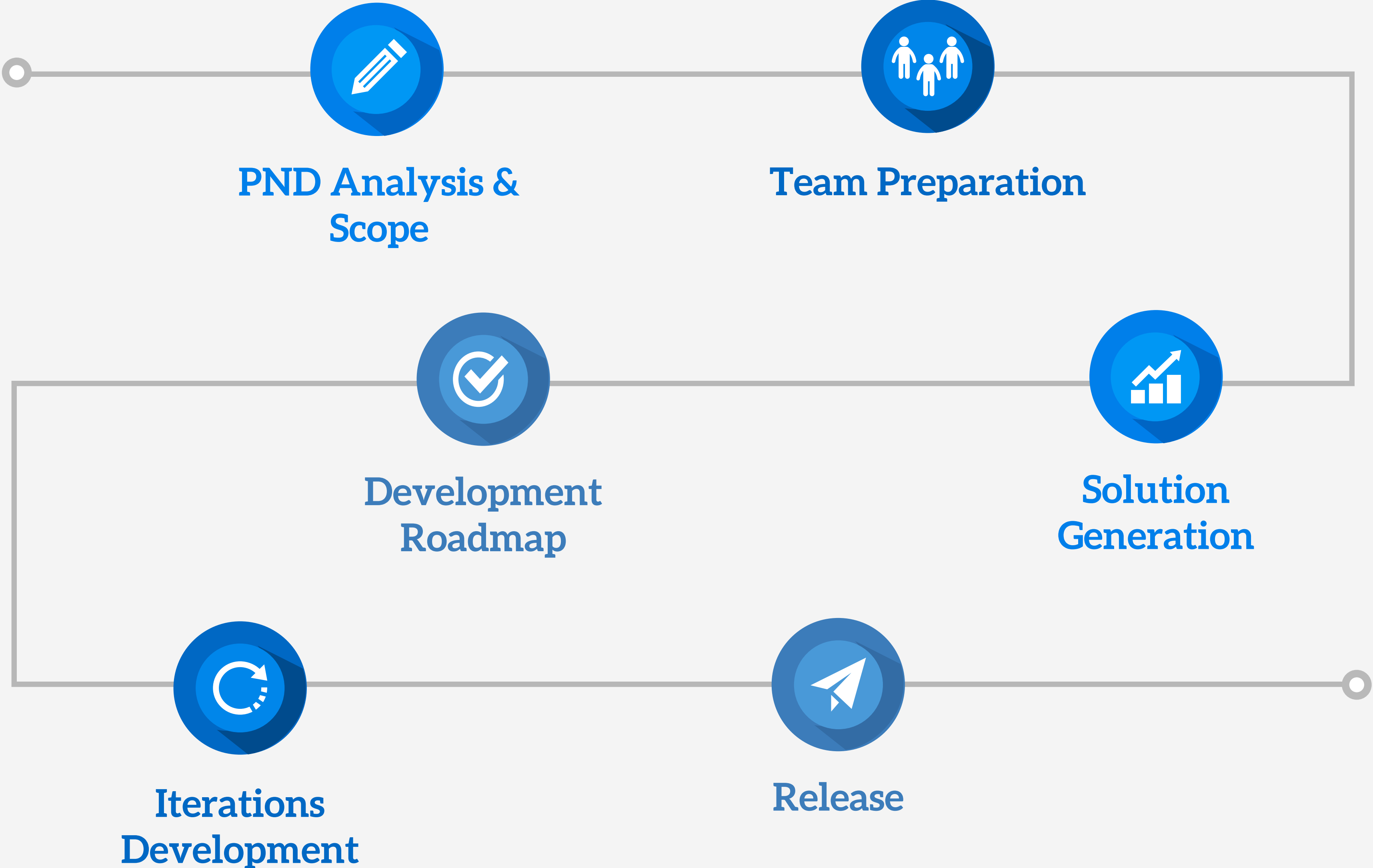
Data Depersonalization - real First/Last names are changed to IDs



Transaction Encryption - all financial parameters (KPI, amounts, sales and etc) are encrypted using specific weight ratio, that is known only for the data owner. Using such approach it is possible to keep the general data trend, yet to hide absolute values.

Also Bitpark commits to sign and fulfill all required **Non-Disclosure Agreements**.

Our Approach



bitpark

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