



GROW WITH CONFIDENCE



# WELCOME TO FIRST KEY!

## A Message from the Executive Director

To meet the challenges of the complex issues facing breweries today, we have some of the most talented, interesting and globally experienced brewery consultants. Our industry foresight, knowledge and deep functional experience across all aspects of the brewing business are what set us apart from other consultants.

Our clients range from small craft brewers to large players, raw material suppliers, distributors, investment firms and banks. For over 30 years we have partnered with them from idea and strategy development through to fully integrated implementation, ensuring that they receive the full value from their investments.

As you learn more about our team and the way we help deliver sustainable results at the world's finest breweries and malting companies, we have no doubt you will appreciate why First Key is the partner of choice. We look forward to hearing from you.

Kind regards,

**Heather Pilkington, Ph.D., P.Eng.**



### EXPERTISE

First Key is a well-established consulting practice that has specialized in the brewing industry for over 30 years.

Our people are academically and professionally qualified in their areas of expertise.

### EXPERIENCE

First Key has completed projects throughout the world for many of the global players and hundreds of national, regional and craft breweries.

On average our people have 20 years "hands-on" experience working in breweries of all sizes.

### ADVANCED TOOLS

First Key uses leading technologies for design and engineering including 3D modeling and simulation.

- Computer-aided design (CAD)
- Auto Plant
- Revit

### PROJECT MANAGEMENT

First Key is committed to a teamwork approach built on trust and communication to deliver the quality, cost and time objectives of each project.

We use cloud-based Microsoft Project so all team members are on the same page, whenever or wherever they are.

### CORE VALUES

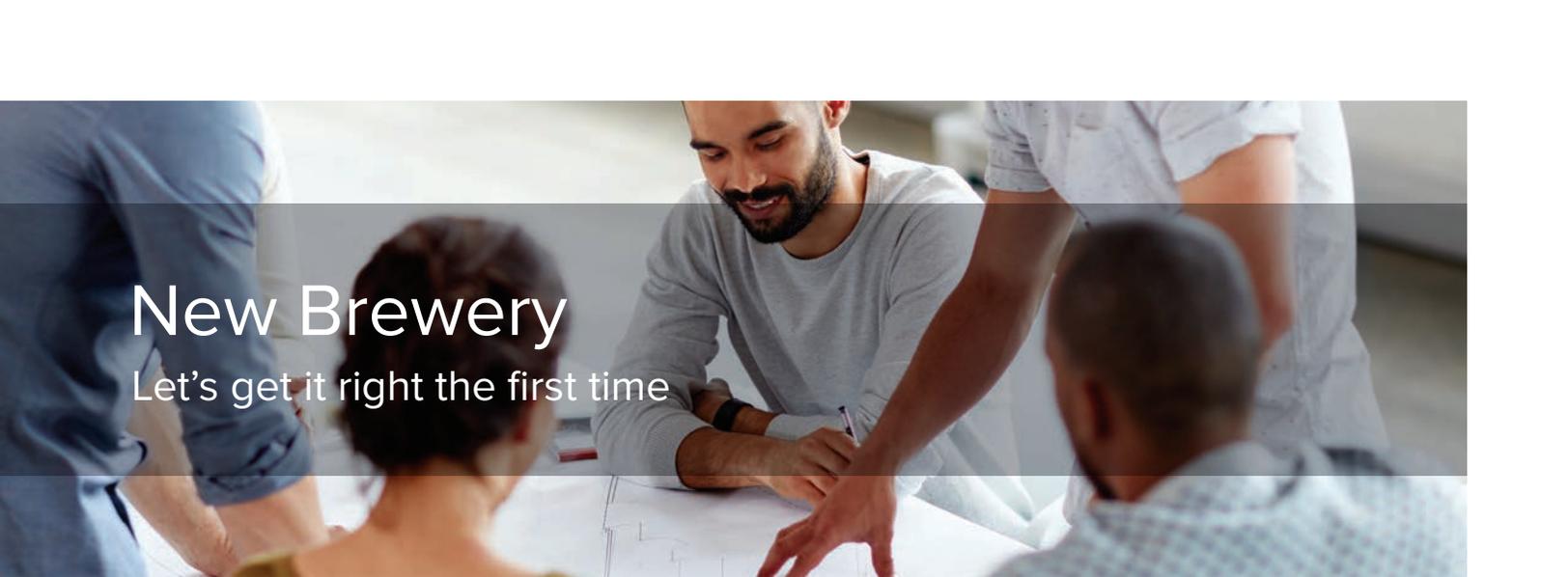
Long-term positive relationships are a primary objective at First Key. We aim to grow the relationship through meeting commitments and solving project issues.

- A non-adversarial approach
- Team-partnering
- Performance before profit
- Professional behavior

### PROFESSIONAL DELIVERY

Our work must be clearly definitive and defensible to our clients. We are viewed as independent and objective, both internally and externally.

First Key has strict internal policy and procedures for nondisclosure and proper treatment of confidential client information.



# New Brewery

Let's get it right the first time

With our team-partnering approach, we offer a one-stop integrated solution that brings a new brewing business to life

## SERVICES

### **Business Planning:** *the foundation of your brewery starts here*

- Market & Commercial Assessment: local/national beer market overview; strategies for product, promotion, packaging, pricing, distribution; sales volume projections
- Technical Assessment: space and equipment requirements; production capacity
- Financial Assessment: capital required; detailed projected financial statements
- Business Plan: description of all plans associated with your new brewery

### **Post-Business Plan:** *design, build and launch your brewery*

- Technical: site/building development and layout; engineering; equipment selection, installation and commissioning; product development; operational procedures; project management
- Commercial: strategies for brand, sales, digital media, people, launch of brewery
- Supply Chain: site search; logistics; distribution; transportation; risk assessment and mitigation
- Financial: cost monitoring; contract brewing

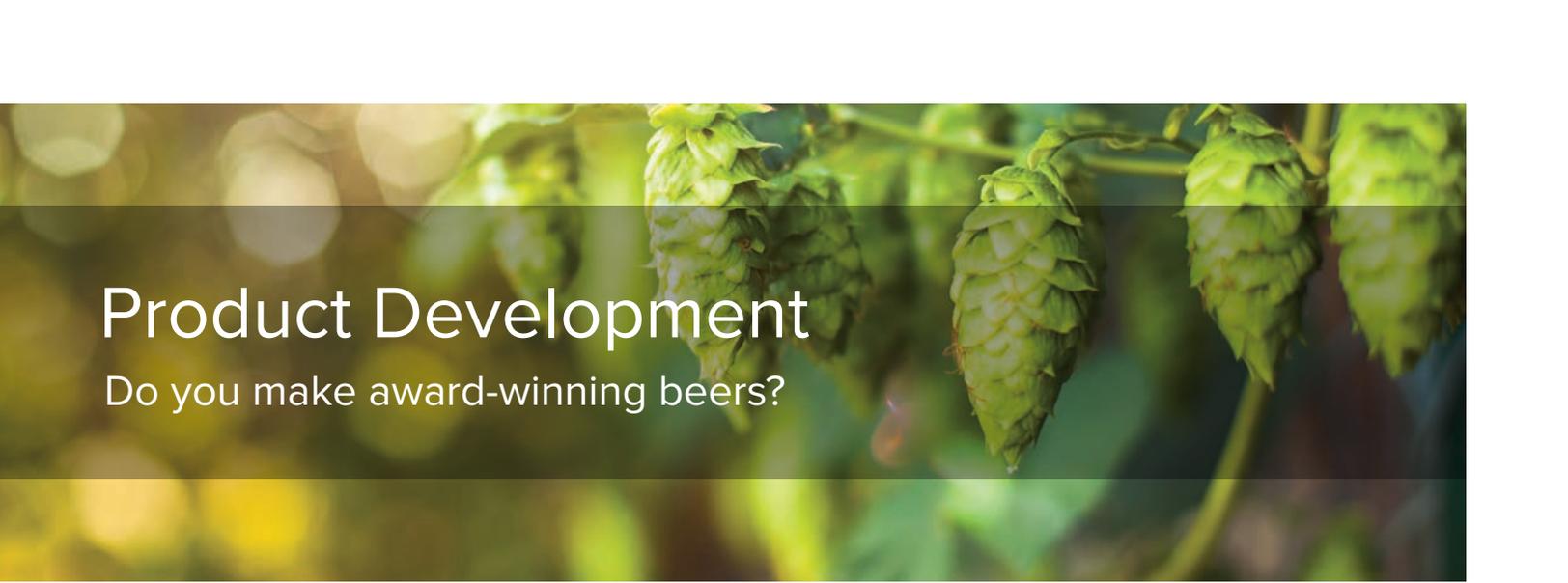
“First Key has been an indispensable resource throughout the development of our brewery. When we engaged First Key’s help, things started coming together quickly. From working with us to develop the overall commercial strategy to planning all the technical details, it has been amazing to work with First Key and see our vision come together.”

**Mike Grenke,**  
**Starkhünd Brewing Company**

## CASE STUDY:

### ***New Craft Brewery***

On the technical front, First Key developed the site plan, production and packaging equipment layouts, equipment selection, procurement, installation and commissioning, as well as the product portfolio analysis and Operations Management Systems. Commercial services included the development of the corporate identity, brand strategy, public relations and on-site strategies as well as a comprehensive sales strategy and the creation of a multi-platform digital media program.



# Product Development

Do you make award-winning beers?

Our in-depth brewing, process and commercial knowledge uniquely positions us to develop high-quality, innovative beers that connect with our clients and their target markets

## SERVICES

**Beer Profile Definition:** *determine the key characteristics of the beer*

To develop a comprehensive profile of the desired beer, an extensive and collaborative profiling process is used to drill down into each unique characteristic

**Recipe Development:** *great taste, great quality*

Incorporating the key characteristics, ingredients and brewing process parameters

**Raw Material Sourcing:** *availability is key*

Hops and malt trends are monitored to ensure accurate commercial scale production

**Brewing Trials:** *on a pilot system in a controlled environment*

Designed to simulate various commercial brewing conditions, processes and systems

**Comprehensive Beer Analysis:** *laboratory and taste profiles completed*

We produce tabular data, perceptual maps and sensory profile mapping; detailed notes from trained evaluators provide a comprehensive and independent opinion

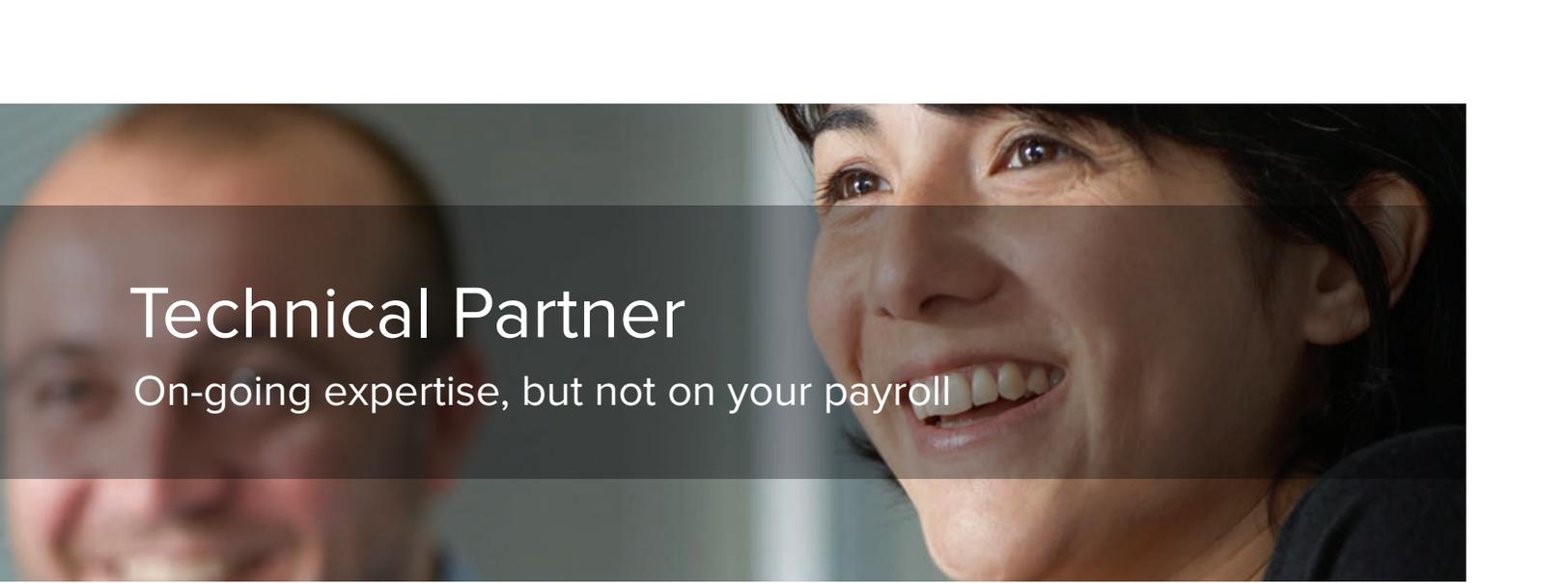
“We really considered ourselves fortunate to have had First Key’s skill-sets and experience on this complex project. The last batch of beer that First Key helped us with tasted great! We thank First Key for their creative input and ability to help us move this project along on a tight timeframe. We were so glad to be working with them.”

**Confidential Client**

## CASE STUDY:

### ***Award-Winning Product Development***

First Key worked with a client starting up a new brewery to initially develop comprehensive profiles for their target beer styles. Our First Key brew master then prepared the beer recipes, complete with the raw materials and process parameters, incorporating the key characteristics desired for each product. Pilot brews were completed to prepare representative samples of each beer style for the client to review, along with expert tasting and laboratory analyses reports to provide an independent evaluation. The recipes were a success, ingredients and procedures were defined, and the brewery ultimately won a medal at the Global Beer Awards for one of the resulting beers.



# Technical Partner

On-going expertise, but not on your payroll

Our Technical Cooperation Agreements offer a tight partnership directed to the top priorities of our clients at preferred rates

## SERVICES

**Operations:** enhance process yield; overcome capacity bottlenecks; increase operational flexibility; increase productivity; improve packaging line performance; implement metrics

**Quality:** audit the brewing process/final product; optimize recipes; improve yeast viability; analyze chemical, microbiological and sensory product; optimize packaging; increase product consistency

**Health & Safety:** assess strengths and gaps; enhance management systems

**Utilities:** develop heat recovery strategies; decrease energy and water usage; reduce effluent impacts and charges; work toward CO<sub>2</sub> self-sufficiency

**Maintenance:** optimize planning/scheduling; improve spare parts management; enhance the maintenance log/work order system

**Supply Chain:** improve materials and finished goods flow; optimize out-bound processes; enhance forecasting, sourcing and procurement practices

I would like to thank you and your entire team for the time and effort you put into the analysis and the report. The report provides valuable information to me as a board member in assessing the state of the company today and the requirements for creating value over the medium term.”

**Stephan DuCharme,**  
Member of Supervisory Board of JSC  
Lomisi (representative of EBRD)

## CASE STUDY:

### *Operations Assessment and Improvement Plan*

The assignment included an assessment of the physical plant, manufacturing cost structure, organization structure, financial analysis/projections, operations benchmarking, and identification of opportunities for improvement. The technical review covered the brewing process, packaging operations, materials handling, and utilities. First Key delivered a comprehensive and detailed report that identified and prioritized over 60 recommendations for improvement. Each recommendation was ranked by their impact on quality, cost, and capacity.



# Engineering and Technology

Integrating quality, innovation, efficiency & value for your benefit

With our process design experience we provide a holistic view of an operation, understand the technology needs and concerns, and deliver an integrated solution for our clients

## SERVICES

**Feasibility studies, layout planning, basic and detailed design, as well as commissioning and start up, for all your brewery processes:**

- Grains Handling and Milling
- Brewhouse
- Spent Grains Handling
- Yeast Management and Propagation
- Fermentation and Ageing
- Filtration and Bright Beer
- Packaging Lines
- Brewery Utilities
- Effluent Systems
- CIP Systems
- Piping Systems
- Control Systems

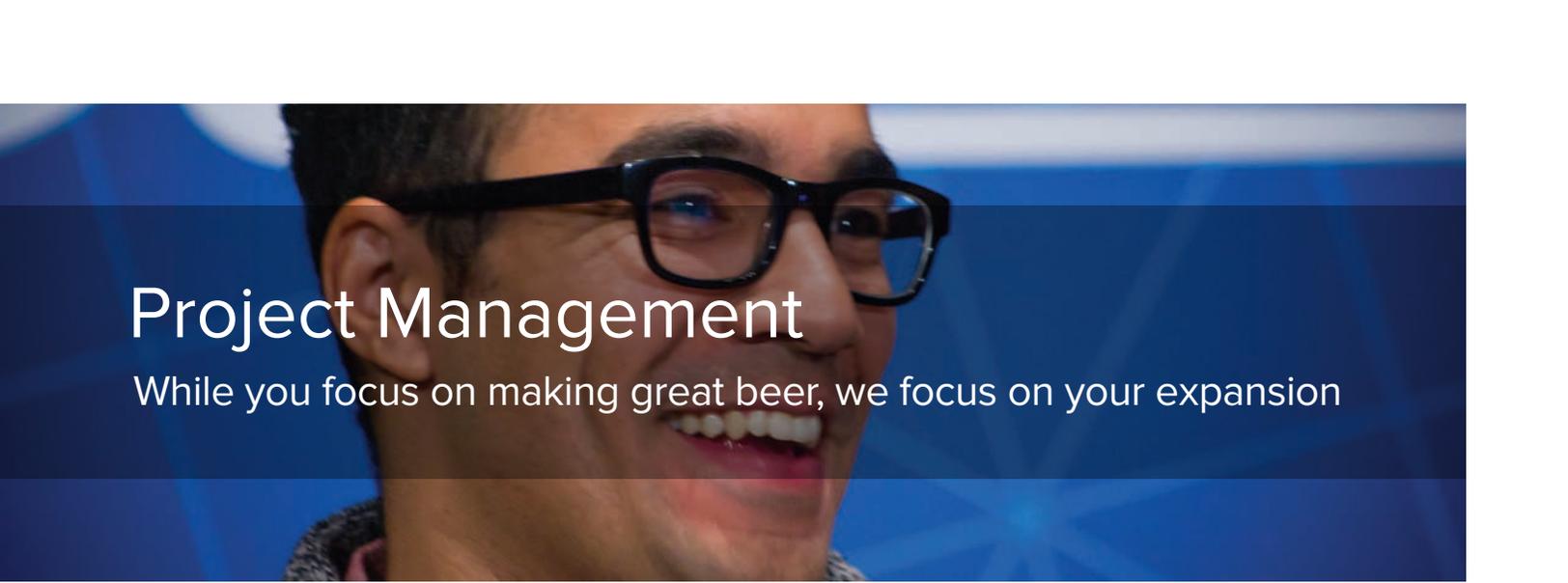
“We have engaged the services of First Key to carry out the engineering process design, process plant installation, and start-up and training for our 2 million hectolitre greenfield brewery in China. I have been pleased with First Key’s technical expertise and overall service, and would be happy to call on them again in the future.”

**John Dunwell**  
Vice President, Technical Services,  
San Miguel Brewing International Ltd.

## CASE STUDY:

### ***Process Engineering***

The assignment included a detailed equipment lay-out plan for a brewery producing up to six million hl/year and included a conceptual study, master plan, preliminary and detailed process design and the contract development for an initial two million hl/year installation (Phase 1). First Key delivered the design for automated process areas including combi-cellar, yeast room, bright beer cellar, CIP and filter rooms. As well, First Key provided commissioning assistance for start-up and prepared operating descriptions and instrumentation design.



# Project Management

While you focus on making great beer, we focus on your expansion

We work seamlessly with technology suppliers and local contractors to optimize the total cost of ownership (TCO) using sustainable solutions

## SERVICES

**Initiate:** identify the scope, provide a cost estimate, schedule development and conduct feasibility studies

**Plan:** for safety, quality control, human resources, communications, cost management, procurement strategy and technical specifications

**Develop:** conceptual design, layout studies, detailed design, integration of technology and engineering services

**Control:** costs, contract administration, schedules, field engineers/supervisors, quality programs, environmental and safety standards

**Close:** complete the project with commissioning and start-up of equipment, training, operations manuals and documentation

“After we decided to close the Romford Brewery, we appointed First Key as our agents to sell the plant. First Key not only introduced the buyer and helped negotiate the sale-purchase agreement, but also provided project and construction management for the removal of all the brewing and process equipment. The site was returned to Carlsberg-Tetley on time, under budget, and in an orderly fashion...a job well done.”

**Alan Davis, Managing Director,  
Operations South (R),  
Carlsberg-Tetley Brewing**

## CASE STUDY:

### *Master Plan for Top 10 Brewery*

First Key developed a 10-year Master Plan for each brewery in the group. Through an incremental capital investment program, there was a focus on improving brewing, packaging, utilities, manufacturing systems and warehouse capabilities from the client’s current state to Best-in-Class. First Key reviewed existing facilities and the breweries’ 10-year volume and sales forecasts, as well as current operational procedures and unit operations to identify current and potential future bottlenecks. The final report included commentary on current operations vs. Best-in-Class, requirements to achieve Best-in-Class over a 10-year period, site layouts for each stage of modernization/ expansion, and cost estimates for recommended actions.



# Agribusiness

## Hops and Malts from the ground up

Our market intelligence on trends, regional and local consumption, as well as technical services, have supported maltsters and hop growers around the world with their national and international growth strategies

### SERVICES

#### **Brewers – Malts and Hops:**

- Optimization on allocation; stability on long-term pricing; procurement strategy; sourcing and supply management
- Vertical integration – assess viability of adding a malting plant and/or growing and processing hops for your brewery operation

#### **Maltsters/Hop Growers:**

- Provide market intelligence on supply and demand, competitive forces and brewer alignment; conduct investment due diligence
- Design of malting/hop processing facilities and equipment selection
- Independent audit of facilities and management systems

“After StarBev was established, we engaged First Key to work with us to develop our malt procurement strategy for going forward. Their knowledge of the global supply chain and current industry practices was fundamental for considering all possible options and ultimately setting our course of action. We have been most pleased with First Key’s expertise and advice.”

**Philippe Vandamme, Chief Supply Officer, StarBev**

#### **CASE STUDY:**

##### ***Malt Strategy for Major Brewing Company***

First Key developed a malt strategy for a regional brewer with operations in nine countries. The project involved the review of alternative procurement strategy models, recommendations and preparing the client for discussions with suppliers. Included was a review of the existing situation, the creation of audit documents and templates, site inspection of existing malt operations and technical reports on existing facilities.



# Commercial Strategy

How does your brand stand out in a crowded market?

We help our clients understand what really drives their marketplace and develop their competitive advantage to create profitable growth

## SERVICES

**Market Analysis:** comprehensive national and local market analysis to uncover trends and dynamics - build the foundation of your go-to-market plan with hands-on market surveys that assess the local landscape, including face-to-face visits with retailers, brewery personnel, consumers, regulators and distributors

**Strategic Branding:** uncover your “why” using an inclusive client discovery process and analysis of brand health, allowing you to maximize the value of your portfolio

**Beer Styles:** develop the required taste profile for your products based on market trends and competitive activity

**Corporate Identity and Cultural Blueprint:** a framework that includes key elements such as mission, vision and core values

**Volume and Profit Projections:** develop detailed long term volume and financial projections based on market dynamics to help you plan with confidence

**Integrated Marketing and Sales Planning:** comprehensive and targeted marketing and sales strategies based on market assessment, competitive analysis and existing brand/company performance

“As a consultant myself, I am in awe of the process the First Key team followed, and the quality and thoroughness of the plan the team produced in a very timely and cost effective manner. Starting with the Market Assessment, First Key’s commercial strategist roamed the state looking at market structure, competition, and distribution opportunities. To top it off, the team was fun to work with, and stood ready to help us execute the plan with various attractive and necessary additional services.”

**Deborah Bailey, Prevail Investments LLC**

## CASE STUDY:

### ***Commercial Development Strategy for New Craft Brewery***

Building on market research, First Key conducted strategic planning sessions with the client to develop nearly every aspect of the commercial plan for a new craft brewery. Areas of focus included brand development, corporate identity and alignment, creative development, execution strategy, public relations, the on-site customer experience, sales management, sales territory and retail account development, digital media strategy, human resources (including creation of the HR manual), staff training and the launch plan. First Key assisted in the development and execution of these elements over a period of two years.



# Go to Market

Are your strategies connecting with your customers?

We focus on delivering relevant, unique and compelling customer experiences

## SERVICES

**Digital Media Solutions:** build a strong and relevant digital presence including website development, social media strategies and search engine optimization

**Brewery Location and Features:** identify the best location for your brewery and the unique features that will deliver success in the local market

**Retail Channel:** develop on and off-premise strategies that will maximize volume and profit delivery

**Distribution:** screen and select the best distribution partners, and negotiate win/win distribution agreements

**Packaging and Pricing:** the right containers and packaging that stand out on the shelf at the right price point to maximize volume and profit

**Organizational Design and Recruiting:** build a framework that includes key elements such as interviewing and hiring, staff training, job descriptions and performance measurement, motivation, performance appraisals, customer service and teamwork

**Launch Planning:** deliver a brewery opening that will create local excitement and get your business off to a running start

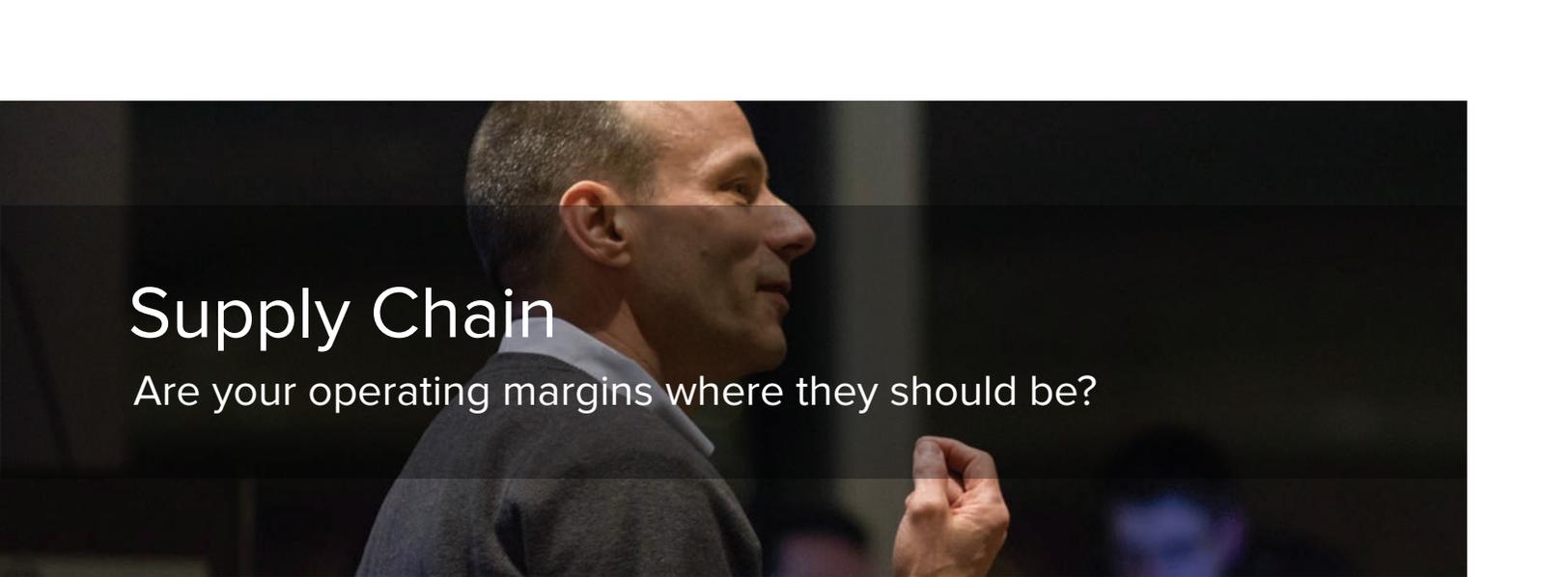
“First Key certainly gave us a big advantage with our expansion, and I strongly encourage others to take advantage of their skills. We came away with a much clearer picture of who we wanted to work with, and how to make sure our contracts protected us.”

**Sam von Trapp, Vice President,  
von Trapp Brewing**

## CASE STUDY:

### *Go To Market Plan*

First Key researched local breweries and the market in the states which the client intended to enter. In order to confirm the client wasn't over-reaching in their projections, First Key interviewed potential distribution partners by using a scorecard for each distributor, looking at their facilities, team, existing portfolio, and other factors, and visited local on- and off-premise accounts to ask about their experiences with the various distributors.



# Supply Chain

Are your operating margins where they should be?

We have a track record for improving cash flow by optimizing procurement and increasing warehouse and transportation efficiencies

## SERVICES

### **Analytical Tools: *data gathering***

Discrete and process simulation; queuing analysis; warehouse layout optimization; transportation routing/schedule; linear and mixed integer programming

### **Distribution: *develop your network and relationships***

Source partners in distribution; design distribution network; facility location selection; contract production; process improvement

### **Logistics: *efficient routes to market***

Evaluate routing/delivery efficiencies; freight auditing; fleet management; source third-party logistics services (3PL); analyze returns/reverse logistics

### **Sourcing & Procurement: *secure reliable suppliers***

Implement processes to procure/manage raw materials and packaging supplies; develop procurement and supply strategies; forecasting; risk management

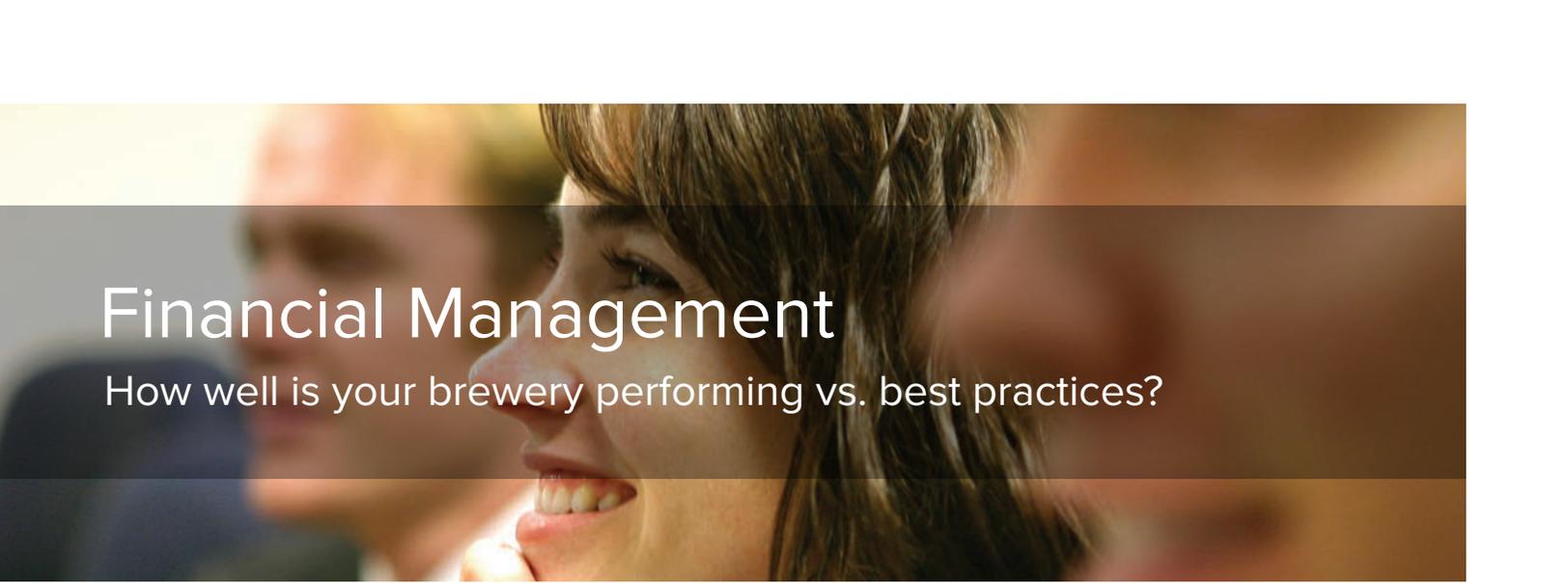
With the objective to minimize the total annual operating cost of beer supply and distribution from breweries to restaurants, we engaged First Key to conduct a network optimization study. They developed a network flow model with over 1500 variables and delivered a comprehensive "Optimization Tool" for achieving our objectives. A job well done."

**Alex Puchner, Senior Vice President,  
BJ's Restaurants**

## CASE STUDY:

### ***Strategic Analysis of Malt Supply Chain***

A comprehensive strategic analysis of the malt supply chain in three major global regions was completed. The analysis included consumption trends, malt trade flows, identification of players and malt capacities, planned expansions, and expected malt supply/demand balance in key end markets. The study included a detailed evaluation of investment considerations including operating and construction costs, production challenges and trade trends, as well as an analysis of the procurement practices of major brewing groups.



# Financial Management

How well is your brewery performing vs. best practices?

Backed with over 30 years' of industry experience, we know the best practices for breweries of all sizes and how to help our clients achieve their goals

## SERVICES

### **Opportunity Assessment:** *strategic drivers*

- Revenue-enhancing opportunities
- Cost reduction opportunities
- Intangible 'catalysts'

**Scorecard:** a benchmarked scorecard comprised of 41 programs in the above three strategic drivers become the basis for a gap analysis and identification of new opportunities

**Recommendations:** analyze and discuss the scorecard, its implications and to generate and prioritize ideas for new implementable opportunities

**Change Management:** collaboratively devise change initiatives, generate organizational buy-in, implement the initiatives as seamlessly as possible, and generate a repeatable model for future change efforts

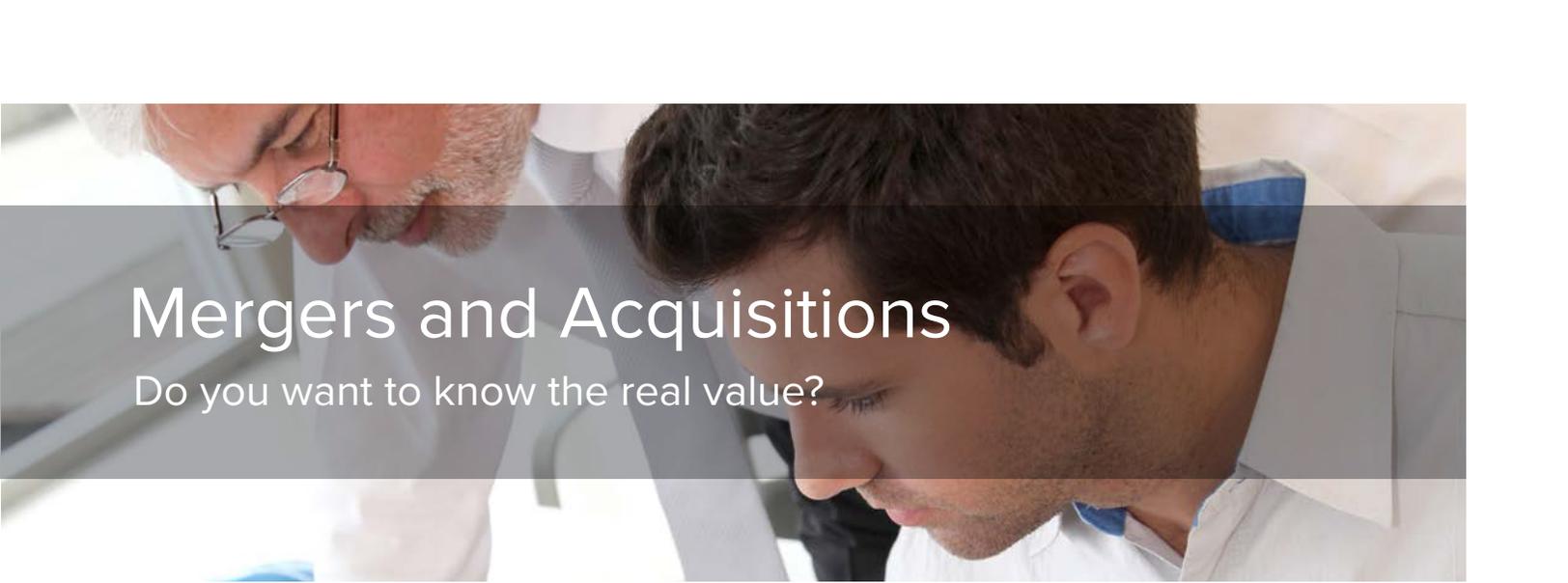
"I would like to thank the entire First Key team for its very professional, responsive, and high quality work."

**Urmas Paavel, Head of Private Equity, ETC Initiative, European Bank for Reconstruction and Development ("EBRD")**

## CASE STUDY:

### **Assessment of Brewery Operations**

First Key was given one month to complete a wide range of deliverables and make recommendations. The assessment included: a plant inspection, capacity assessment, capital expenditure plan, management and IT assessment, divisional valuation and carve out assessment, business plan and financial forecast assessment, as well as an analysis of branding issues. First Key delivered its report on time and on budget.



# Mergers and Acquisitions

Do you want to know the real value?

We are independent, neutral and objective and have been supporting the sellers, buyers, private equity firms and banks for over 30 years. We operate with strict internal policies for nondisclosure and proper treatment of confidential information

## SERVICES

### Due Diligence for small craft breweries to multiplant businesses:

**Brewery Technical:** assess condition, capability and capacity of equipment, capital plans, operational process management, quality, efficiency, benchmarking and recommendations to best-in-class standards

**Supply Chain:** from sourcing to finished goods shipments

**Distribution and Regulatory:** distributor relationships, coverage capability, shared marketing, quality assurance, competitive cost model

**Sales and Marketing:** brand health, volume projections, organization, culture, pricing, packaging, beer styles, sales, marketing

**Management and Operations:** management structure, skills, experience, HR and employee development, process and procedures, key performance indicators (KPIs), systems evaluation

**Financial:** analysis of historical and forecasted financials

“First Key was engaged to assist in our investment evaluation of a large multi-plant brewing organization. After their preliminary marketing and technical evaluation, we re-engaged them to conduct a full due diligence with the objective of identifying issues to be aware of as the brewing company moved forward. First Key helped us to understand critical elements of the beer business and the strengths and weaknesses of the target company.”

**Dmitry Chernyak, Investment Manager,  
Texas Pacific Group**

## CASE STUDY:

### *Investment Evaluation Study*

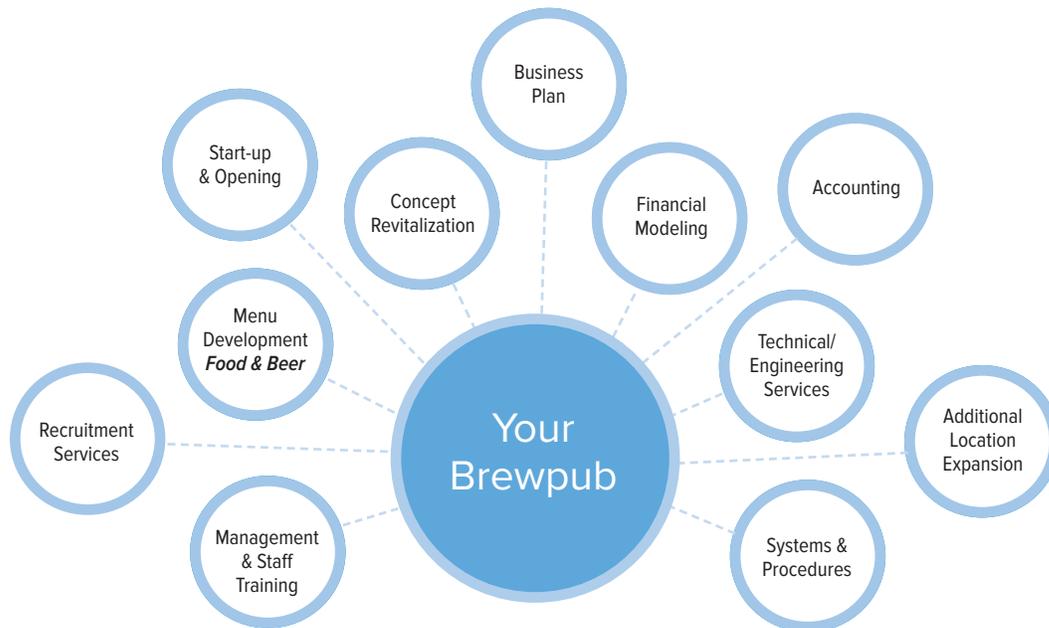
First Key assembled a five-member team consisting of marketing, distribution and procurement, operations, engineering and finance specialists. The assignment required an assessment of the political and economic environment and distribution channels in the country, as well as a thorough marketing, technical, operations and financial due diligence on the target company. First Key delivered a “complete picture” report on the investment opportunity including recommendations for streamlining promotional spending, re-focusing the brand portfolio and technical upgrades to financial proformas.

# Brewpubs

From concept to completion

We can enhance every aspect of brewery, restaurant and kitchen operations for your brewpub

## SERVICES



“When we decided to build a brewpub we needed a consultant that could handle the entire project. First Key did an excellent job, leaving us with a comprehensive Brewery Operations Manual that included customized operating procedures and an on-going quality management system. It was a real pleasure to work with a company that could handle all aspects of the project.”

**Bob Prather, Director,**  
**Feather Falls Brewing Co.**

### CASE STUDY:

#### ***New Brewpub***

The project included recommending equipment suppliers, acquiring supporting equipment, supplies and brewing materials, organizing the lab and its equipment, formulating beer recipes, brewing trials and beer development with beer samples. First Key handled the start-up and commissioning of the brewery equipment in conjunction with equipment suppliers and local trades, hired and trained staff brewers, educated/trained staff about their beer, prepared quality control standards and procedures, and developed a brewery maintenance management system.

## WHY FIRST KEY

"...because early integration of experience and best practice minimizes the risk of project failure, secures consistent quality and reduces costs."





# INTEGRATED SOLUTIONS

We provide integrated solutions that truly make a difference to your bottom line. Please contact us anytime.

[FIRSTKEY.COM](https://www.firstkey.com)