PROJECT HELIOS



**BNP Paribas Bank**

**Central Bank of Argentina**

**New York Federal Reserve Bank**

**Collaborative Global Venture**

IT Solutions | DSTI Consulting | 8/11/2016

# Project Overview and Historical Driving Forces

**Money:** Medium of Exchange that is Divisible, Transportable and Universally Accepted and serves as a ***Secure Storage of Wealth***.

***BNP PARIBAS*** has a high margin value opportunity that is at the top of the Executive Review Team Watch List, and currently on the short list briefing for the Chairman and Board of Directors. This solution seeks to provide a unique customer focused currency stabilization solution to partner banks located in Argentina.

Hyperinflation continues to be high within the otherwise industrialize and highly developed South American nation, averaging 25% per year, with seasonal variations that has caused national bank holidays, restriction of withdrawals, and overall lack of savings protection for customers who make transactions in the national currency. Due to a recent change in national banking laws, there is now restrictions upon deposits in foreign currencies such as the Euro, and USD. Regrettably, inflation is expected to reach a worse case forecast nearing 45% by end of 2017 and thereafter, continue rising into an extreme exponential phase resulting in ***triple digit inflation beyond 2018***. Ironically, the very government officials who are behind these new regulations, are also the driving force behind this unique ATM dispensary proposal***. Customer fear is now at the heart of the problem*** of these banks, and this solution seeks to resolve the fear of its customers by providing a solution in the “currency that knows no country,” otherwise known as Gold Bullion.

The commodity based money machines will provide an alternative to the national fait paper currency system until stabilization is reached. They will dispense a proprietary minted precious metal currency in Platinum, Gold and Silver that allows for easy tracking and thus, will aid the Argentina Reserve Bank to target and control inflation through the data intelligence provided by the currency in the form of electronic tracking of money velocity. ***BNP PARIBAS*** and the ***New York Federal Reserve Bank*** in partnership own the rights to this Data Model.

This solution will be provided to the following list of banks in three phases.

|  |  |  |  |
| --- | --- | --- | --- |
| Phase | Bank | Total Assets US$B | Balance Sheet Date |
| **One** | **Banco de la Argentina** | **31.315** | **31.03.2016** |
| **One** | **Banco Galicia** | **13.245** | **30.06.2016** |
| Three | Banco Provincia | 12.884 | 30.06.2016 |
| Three | Banco Santander Rio | 11.037 | 30.06.2016 |
| Three | BBVA Banco Frances | 8.798 | 30.06.2016 |
| Two | Banco Marco | 8.557 | 30.06.2016 |
| **One** | **Banco Ciudad** | **4.785** | **30.06.2016** |
| **One** | **HSBC Bank of Argentina** | **4.762** | **30.06.2016** |
| Three | Banco Credicoop | 4.461 | 30.06.2016 |
| Three | Banco de San Juan | 4.472 | 30.06.2016 |
| Three | Banco Patagonia | 4,137 | 30.06.2016 |
| Three | City Bank N.A. Argentina Branch | 4.111 | 30.06.2016 |
| Three | ICBC | 4.015 | 30.06.2016 |
| **One** | **Banco de Cordoba(Bancor)** | **2.719** | **30.06.2016** |
| **One** | **Banco Hipotecario** | **2.710** | **30.06.2016** |
| **One** | **Banco Supervielle** | **2.477** | **30.06.2016** |
| **One** | **Banco de Santa Fe** | **2.265** | **30.06.2016** |
| **One** | **Banco Itau Argentina** | **1.543** | **30.06.2016** |

* The Precious Metals Bullion ATM machines act as an internalized outsourced “Gold Window” alternative for the traditional fait paper currency banking system.
* These specialized AMT machines can receive deposits as well as provide withdrawals.
* Legally, these transactions are treated as purchases rather than banking withdrawals, therefore are not subject to the national fait paper currency withdrawal regulations.
* Separate “National Precious Metals Bullion Purchase” regulations do exist in Argentina; however current limits far exceed in real value the withdrawal limits of the national fait paper currency system.
* Employers can pay employees through specialized international “purchase” cards that are specific to the machines and system, thus allowing employees both protection for their savings and access to their currency outside of the current currency regulations.
* This solution, if implemented will be the single largest re-introduction of a Precious Metal Currency in modern times and the largest deployment of such machines.
* The Reserve Bank of Argentina, Government Officials, and Banks require that the coins be minted using technology that will enable the tracking of the coins in the money supply. Due to fear of the national currency, it is believed that adoption will be highest if the coins are not considered a national product of Argentina’s Reserve Bank. Therefore, the Helios currency is being introduced through system.

In terms of monetary policy, Argentina is facing a difficult time in the very near future. As the overall money supply increases, and the money is then released into the operating money supply, price inflation will increase exponentially. As prices increase, this creates an even large demand upon the government to pay its bills, many which are index by law to price inflation, thus creating a feedback loop that is contributing to the runaway hyperinflation.

This cycle is now entering a dangerous and fatal phase for Argentina.

This cycle is now driving widespread use of foreign currencies as a stable storage of value

With the increase of prices, the value of the national currency value declines.

Without stabilization, this will lead to a wipe out of the money value, destabilization of the society, including all corporate and government authorities.

The Helios Project creates a regulated, and acceptable means of conducting a legalized form of “Money Laundering,” that provides a lifeboat for wealth protection, and safety value for social and political unrest. The success of this lifeboat is the foundation of the new currency system of Argentina. Below is the time line evolution of this project until currency stabilization is reached.

**Helios Proprietary Minted Coins have the following features.**

* Special Alloy of .9865 Purity, with imbedded nanotechnology identification
* Can be damaged or cut and still identified.
* Can be tracked remotely as it circulates throughout the economy and eventually the globe.
* Provides important monetary financial data to the Central Reserve Bank regarding inflation environment of the economy.
* Can provide data that can be modeled in a 3D time model visualization for the economy.

## Helios Project Mission Statement

Design a first-generation (**Phase One**) GUI for a Platinum, Gold and Silver Bullion Automatic Teller Machine (ATM) to be placed inside of target banking institutions. These machines represent phase one of a currency stabilization project that is being instituted by the Reserve Bank of Argentina, in collaboration with the New York Federal Reserve Bank of the United States of America and BNP Paribas Bank of France.

## Helios Customer Requirements

Machines to be used for Phase One can be seen demonstrated here:

<https://www.youtube.com/watch?v=0vxYBKycJic>

“India’s First Gold ATM Machine. “Demonstration on 6/11/2016.

* Accepts the following currencies (**Phase One**) ***USD, Euro, Argentine Peso, Brazilian Real, the Peruvian Sol, Colombian Peso, Venezuelan Bolivar, Chilean Peso,*** (Phase Two) Mexican Peso, Panamanian Balboa, (Phase Three) All other Currencies of Latin American Nations.
* (**Phase One and beyond**) Can execute transactions in Platinum, Gold or Silver Precious Metal Transactions
* (**Phase One and beyond**) Can accept major credit cards.
* (**Phase One and beyond**) Able to provide real time strike quotes to the customer between the currency value of the selected currency and the London Gold Market closing value of the previous day.
* (**Phase One and beyond**) Able to accept and dispensed Platinum, Gold or Silver Proprietary minted currency in original values (Phase Two), and in fractional amounts (Phase Three), and all other Platinum, Gold or Silver Internationally Minted Coins, such as the American Eagle, Canadian Maple, or South African Krugerrands.
* (**Phase One and beyond**) Able to identify and reject damaged proprietary minted currency, foreign minted international currency, and fractionalized currency, (Phase Two) Able to identify and reject foreign minted international precious metals currency, but accept proprietary fractionalized and damaged currency, (Phase Three), able to reject only bogus counterfeited precious metals currency.
* (**Phase One and all other Phases**) Able to Purchase Argentina Pesos and deposit them into the customers Bank Account from the customers Helios ETF account.
* (**Phase One and all other Phases**) Able to Purchase Helios Proprietary Minted Coins from the customers Argentina Bank Accounts and select to hold them in their Helios ETF Account.
* (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers.
* (**Phase One and beyond**) Able to access Helios ETF ATM account using a smart phone application interface.
* (**Phase One and beyond**) Able to create accounts for identified domestic and international known criminals with security notification, and enabled tracking of Helios currency system using global GPS enabled Extreme Low Frequency Radar system.
* (**Phase One and beyond**) Creation and Issuance of Helios ETF ATM Chip enabled cards from the machine, using machine captured photograph, with national ID information.
* (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account.
* (**Phase One** **and beyond**) Able to Dispense Argentina Pesos from machine after customers access their Helios ETF account. (Phase Two and Beyond) Able to dispense in USD and Euros.
* (**Phase Four)** Machines can accept and dispense Helios Paper Currency, which will be recognized and accepted as the new adopted currency of the Reserve Bank of Argentina in 2020.

**Requirements of Transaction Value Decisions**

**Network Requirements of Helios ATM system**

## Helios Requirements Analysis

**LAPAG Analysis Model**

|  |  |
| --- | --- |
| **Level** | **Description** |
| T1 | Time Requirements and Issues |
| T2 | Synchronization Requirements Issues |
| T3 | Network Requirements and Issues |
| T4 | Safety and Security to Users |
| T5 | Safety and Security of Methods |
| T6 | Stages of Phases of Project |
| T7 | Links Between Concepts. |

**Level by Priority from Left to Right**

|  |  |  |  |
| --- | --- | --- | --- |
| **L1** | **L2** | **L3** | **Customer Requirements** |
| T1 | T2 |  | Accepts the following currencies (**Phase One**) ***USD, Euro, Argentine Peso, Brazilian Real, the Peruvian Sol, Colombian Peso, Venezuelan Bolivar, Chilean Peso,*** |
| T1 | T2 | T6 | *(Phase Two) Mexican Peso, Panamanian Balboa,* |
| T1 | T2 | T6 | *(Phase Three) All other Currencies of Latin American Nations.* |
| T1 | T2 | T4 | (**Phase One and beyond**) Can execute transactions in Platinum, Gold or Silver Precious Metal Transactions |
| T2 | T4 |  | (**Phase One and beyond**) Can accept major credit cards. |
| T1 | T2 | T7 | (**Phase One and beyond**) Able to provide real time strike quotes to the customer between the currency value of the selected currency and the London PM Market closing value of the previous day. |
| T4 | T5 |  | (**Phase One and beyond**) Able to accept and dispensed Platinum, Gold or Silver Proprietary minted currency in original values |
| T4 | T5 | T6 | *(Phase Two), and in fractional amounts* |
| T4 | T5 | T6 | *(Phase Three), and all other Platinum, Gold or Silver Internationally Minted Coins, such as the American Eagle, Canadian Maple, or South African Krugerrands.* |
| T4 | T5 |  | (**Phase One and beyond**) Able to identify and reject damaged proprietary minted currency, foreign minted international currency, and fractionalized currency, |
| T4 | T5 | T6 | *(Phase Two) Able to identify and reject foreign minted international precious metals currency, but accept proprietary fractionalized and damaged currency,* |
| T4 | T5 | T6 | *(Phase Three), able to reject only bogus counterfeited precious metals currency.* |
| T1 | T2 | T7 | (**Phase One and all other Phases**) Able to Purchase Argentina Pesos and deposit them into the customers Bank Account from the customers Helios ETF account. |
| T1 | T2 | T7 | (**Phase One and all other Phases**) Able to Purchase Helios Proprietary Minted Coins from the customers Argentina Bank Accounts and select to hold them in their Helios ETF Account. |
| T1 | T2 | T4,  T5,  T7 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| T1 | T2 | T3 | (**Phase One and beyond**) Able to access Helios ETF ATM account using a smart phone application interface. |
| T3 | T4 | T7 | (**Phase One and beyond**) Able to create accounts for identified domestic and international known criminals with security notification, and enabled tracking of Helios currency system using global GPS enabled Extreme Low Frequency Radar system. |
| T4 | T5 |  | (**Phase One and beyond**) Creation and Issuance of Helios ETF ATM Chip enabled cards from the machine, using machine captured photograph, with national ID information. |
| T1 | T2 | T3,  T4, T7 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
| T1 | T2 | T3 | (**Phase One** **and beyond**) Able to Dispense Argentina Pesos from machine after customers access their Helios ETF account. |
| T1 | T2 | T3 | *(Phase Two and Beyond) Able to dispense in USD and Euros.* |
| T7 |  |  | *(****Phase Four)*** *Machines can accept and dispense Helios Paper Currency, which will be recognized and accepted as the new adopted currency of the Reserve Bank of Argentina in 2020.* |
|  |  |  | Additional Unknown Issues |
|  |  |  | Additional Unknown Issues |
|  |  |  | Additional Unknown Issues |
|  |  |  | Additional Unknown Issues |
|  |  |  | Additional Unknown Issues |

Phase One Issues Only

|  |  |
| --- | --- |
| **No** | **Description** |
| 1 | **T1 Time Requirements and Issues** |
| 2 | Accepts the following currencies (**Phase One**) ***USD, Euro, Argentine Peso, Brazilian Real, the Peruvian Sol, Colombian Peso, Venezuelan Bolivar, Chilean Peso,*** |
| 3 | (Phase Two) Mexican Peso, Panamanian Balboa, |
| 4 | (Phase Three) All other Currencies of Latin American Nations. |
| 5 | (**Phase One and beyond**) Can execute transactions in Platinum, Gold or Silver Precious Metal Transactions |
| 6 | (**Phase One and beyond**) Can accept major credit cards. |
| 7 | (**Phase One and beyond**) Able to provide real time strike quotes to the customer between the currency value of the selected currency and the London PM Market closing value of the previous day.  (**Phase One and all other Phases**) Able to Purchase Argentina Pesos and deposit them into the customers Bank Account from the customers Helios ETF account. |
| 8 | (**Phase One and all other Phases**) Able to Purchase Helios Proprietary Minted Coins from the customers Argentina Bank Accounts and select to hold them in their Helios ETF Account. |
| 9 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| 10 | (**Phase One and beyond**) Able to access Helios ETF ATM account using a smart phone application interface. |
| 11 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
| 12 | (**Phase One** **and beyond**) Able to Dispense Argentina Pesos from machine after customers access their Helios ETF account. |
| 13 |  |
| **14** | **T2 Synchronization Requirements Issues** |
| 14 | Accepts the following currencies (**Phase One**) ***USD, Euro, Argentine Peso, Brazilian Real, the Peruvian Sol, Colombian Peso, Venezuelan Bolivar, Chilean Peso,*** |
| 15 | (**Phase One and beyond**) Can execute transactions in Platinum, Gold or Silver Precious Metal Transactions |
| 16 | (**Phase One and beyond**) Able to provide real time strike quotes to the customer between the currency value of the selected currency and the London PM Market closing value of the previous day. |
| 17 | (**Phase One and all other Phases**) Able to Purchase Argentina Pesos and deposit them into the customers Bank Account from the customers Helios ETF account. |
| 18 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| 19 | (**Phase One and beyond**) Able to access Helios ETF ATM account using a smart phone application interface. |
| 20 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
| 21 | (**Phase One** **and beyond**) Able to Dispense Argentina Pesos from machine after customers access their Helios ETF account. |
|  |  |
|  |  |
|  | **T3 Network Requirements and Issues** |
| 22 | (**Phase One and beyond**) Able to access Helios ETF ATM account using a smart phone application interface. |
| 23 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
| 24 | (**Phase One** **and beyond**) Able to Dispense Argentina Pesos from machine after customers access their Helios ETF account. |
|  |  |
|  | **T4 Safety and Security to Users** |
| 25 | (**Phase One and beyond**) Can execute transactions in Platinum, Gold or Silver Precious Metal Transactions |
| 26 | (**Phase One and beyond**) Can accept major credit cards. |
| 27 | (**Phase One and beyond**) Able to accept and dispensed Platinum, Gold or Silver Proprietary minted currency in original values |
| 28 | (**Phase One and beyond**) Able to identify and reject damaged proprietary minted currency, foreign minted international currency, and fractionalized currency, |
| 29 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| 30 | (**Phase One and beyond**) Able to create accounts for identified domestic and international known criminals with security notification, and enabled tracking of Helios currency system using global GPS enabled Extreme Low Frequency Radar system. |
| 31 | (**Phase One and beyond**) Creation and Issuance of Helios ETF ATM Chip enabled cards from the machine, using machine captured photograph, with national ID information. |
| 32 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
|  |  |
|  | **T5 Safety and Security of Methods** |
| 33 | (**Phase One and beyond**) Able to accept and dispensed Platinum, Gold or Silver Proprietary minted currency in original values |
| 34 | (**Phase One and beyond**) Able to identify and reject damaged proprietary minted currency, foreign minted international currency, and fractionalized currency, |
| 35 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| 36 | (**Phase One and beyond**) Creation and Issuance of Helios ETF ATM Chip enabled cards from the machine, using machine captured photograph, with national ID information. |
|  |  |
|  | **T6 Stages of Phases of Project** |
|  | None during Phase One |
|  |  |
|  | **T7 Links Between Concepts.** |
| 37 | (**Phase One and beyond**) Able to provide real time strike quotes to the customer between the currency value of the selected currency and the London PM Market closing value of the previous day |
| 38 | (**Phase One and all other Phases**) Able to Purchase Argentina Pesos and deposit them into the customers Bank Account from the customers Helios ETF account. |
| 39 | (**Phase One and all other Phases**) Able to Purchase Helios Proprietary Minted Coins from the customers Argentina Bank Accounts and select to hold them in their Helios ETF Account. |
| 40 | (**Phase One and beyond**) Able to Open a Helios ETF account with National ID, Machine captured electronic photograph, and customer acceptance of the terms and conditions of the use of the Helios System, and (Optional) customers mobile telephone numbers. |
| 41 | (**Phase One and beyond**) Able to create accounts for identified domestic and international known criminals with security notification, and enabled tracking of Helios currency system using global GPS enabled Extreme Low Frequency Radar system. |
| 42 | (**Phase One and beyond**) Able to scan and accept Employer pay role checks, to be converted at strike price and deposited into customers Helios ETF ATM account. |
| 43 | *(****Phase Four)*** *Machines can accept and dispense* ***Helios Paper Currency****, which will be recognized and accepted as the new adopted currency of the Reserve Bank of Argentina in* ***2020.*** |

## Helios algorithm design Report

## Helios Risks and Problems Report

## Helios Context Diagram (see slides on 8/11/2016)

## Helios (TBD Section) (see slides on 8/11/2016)

## Helios (TBD Section) (see slides on 8/11/2016)

## Helios (TBD Section (see slides on 8/11/2016)

## Helios (exhibts) (see slides on 8/11/2016)

## Helios (Appendix 1) (see slides on 8/11/2016)

## Helios (Appendix 2) (see slides on 8/11/2016)

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