

Commodity Plus Carbon (CPC)

*Mitigating Climate Change and Reducing Carbon
Emissions in Agriculture*

Developed by GIC Group





Issues of Today and Goals of Tomorrow

► Issues:

- The agricultural sector, which includes the entire value chain and services, accounts for approximately 11% of global GHG Emissions levels.
- GHG ratios (%) attributable to the ag value chain are as high as 31% in livestock & fisheries; 27% in crop production; 24% in land use; and 18% in supply chains.
- Soil degradation is a significant cause of these dramatic changes and serves to compound the problem of reducing carbon emissions levels and meeting the challenge of achieving sustainability.
- COVID-19 and the global economic slowdown have resulted in revenue losses for the entire agriculture/ agribusiness value chain.

► Goals:

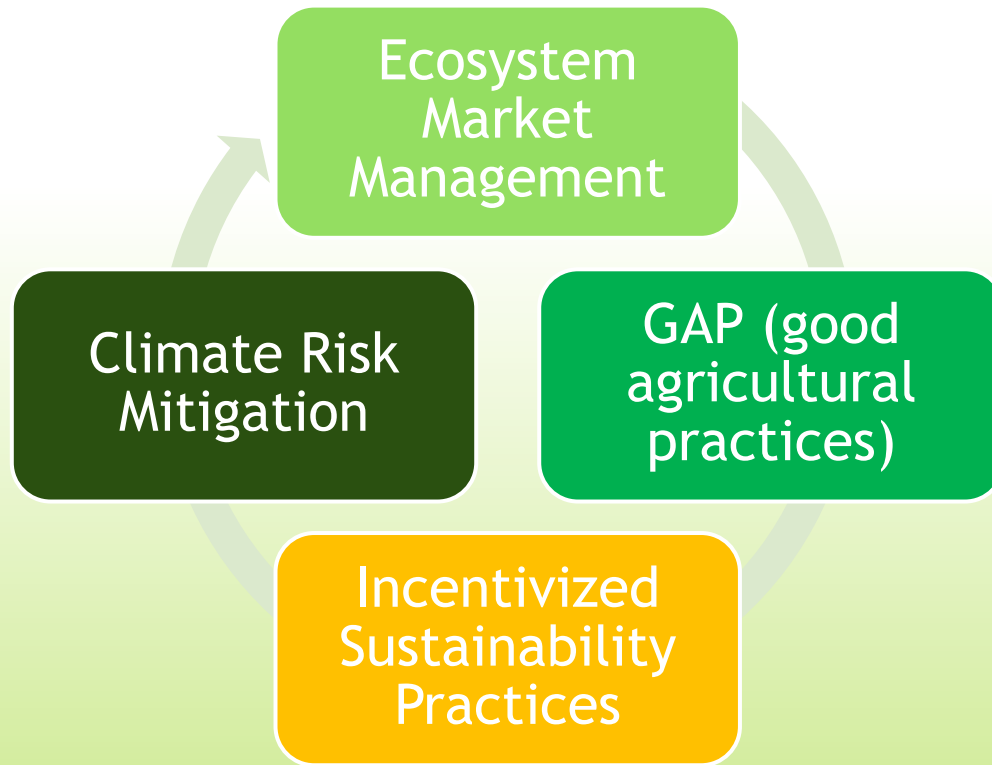
- Good agricultural practices
- Reaching Paris Agreement/COP reduction targets
- Developing “green” sources of revenue into crop production and the agricultural value chain
- Mitigating risk for climate change

Market Opportunity

- ▶ CPC (commodity plus carbon) is a climate risk mitigation system based on new futures contracts for crops and food and feed products.
- ▶ CPC contracts maximize reduction & sequestration benefits of new technologies and good agricultural practices.
- ▶ Risk mitigation: Creates a new hedging instrument for strategic, high volume commodities in futures markets.
- ▶ New revenue potential from input cost reductions and incentivized good agricultural practices.

Solution

- ▶ The CPC strategy is to use futures contracts to incentivize good agricultural practices. It is a market approach to reducing carbon emission levels and to sustainable agriculture.



Building the Crop Story

Milestones

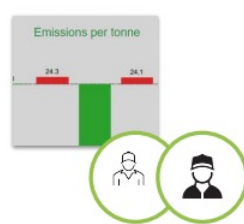
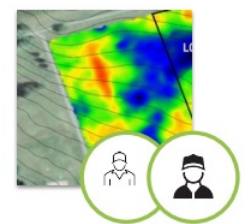
Evidence*



Crop Story



- M1 Sign up**
Farm & fields polygons
 - Wg
 - License
 - Self declaration
- M2 Tillage and Planting**
Tillage activity, Planting data
 - Georeferenced /NDVI images
 - APIs
 - Teledetection algorithms
- M3 Applications**
Product, rate, date
 - Application reports, Invoices
 - APIs
- M4 Yield Monitoring**
 - Pre-harvest scouting report - georeferenced picture
- M5 Harvest**
Yield
 - Yield report
 - APIs
- M6 Carbon footprint**
CFT
 - Production system data





CPC Competition & Pitfalls

- ▶ “Green” bonds/ securities or ESG impact investment funds/ private equity financing (Environmental/Social and Corporate Governance)
 - ▶ Lack of transparency (insufficient reporting standards)
 - ▶ No guaranteed use of proceeds
- ▶ Private sector carbon credit payment/trading programs
 - ▶ Companies continue to emit same GHG levels, offset by purchasing credits - greenwashing
- ▶ Direct farm payment initiatives for carbon reduction
 - ▶ Lack of market incentive hinders both scaling and private sector emission reduction capabilities

Differentiation of CPC

- ▶ Diverse databases and data dumps from sensory detection sources
- ▶ Reputable source for verification: ucrop
- ▶ Blockchain Technology
- ▶ Mass Balance delivery certification system
- ▶ Crop and product contract roll-outs: Corn, Soybeans, Sorghum, Ethanol, Canola, SRW wheat, HRW wheat, Lean hog, Live cattle, Feeder cattle, Cocoa, Cannabis and Hemp
- ▶ Market sensitive mitigation instrument
- ▶ Horizontal and vertical revenue generation

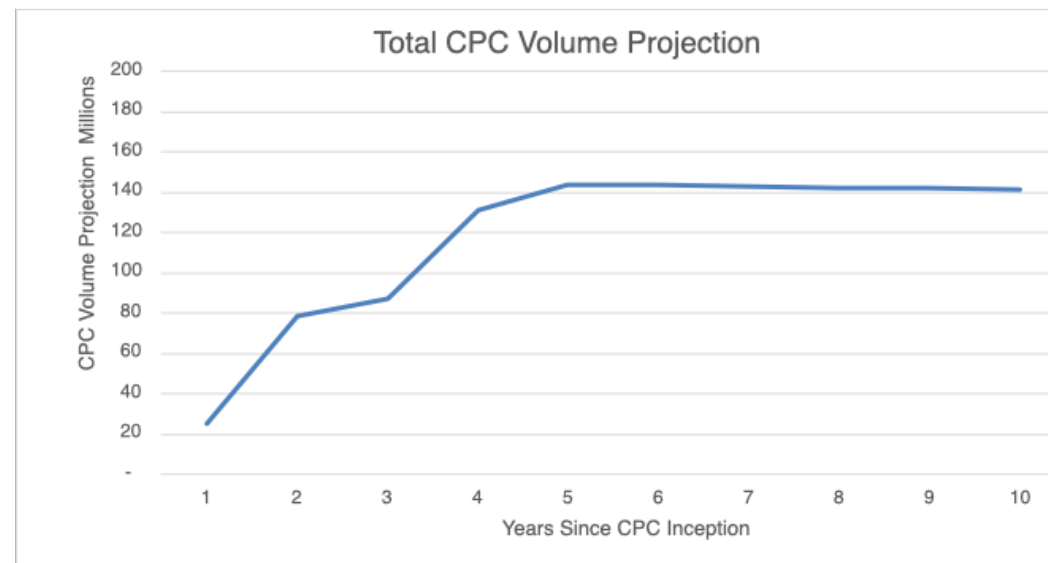
Investment Proposal for CPC

- ▶ Individual crops that either feature GHG reducing traits or are produced through carbon reduction and sequestration technologies and practices
- ▶ Low-cost bundling (25%/75%) of the value of a producer's carbon reduction practices with the value of the physical commodity
- ▶ ROI based on negotiated royalties on CPC contract listed on Exchange(s)



Revenue Model of CPC

- ▶ Revenue from Exchange Transaction Fees (Futures)
- ▶ Three CPC contract roll-outs in Year 1, three roll-outs in Year 2, three in Year 3, two in Year 4 and two in Year 5
- ▶ 10-year trading volumes projected using average 5-year growth rates



	2023	2024	2025	2026	2027
Futures Trade Volume	25,483,502	78,710,459	86,911,207	131,052,264	143,933,579
Exchange Transaction Fees (Futures)	\$ 1,674,096	\$ 5,170,752	\$ 5,709,487	\$ 8,609,260	\$ 9,455,477
Market & Reduction Value Calculations*	\$ 75,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 225,000
Subtotal Gross Revenues All Sources	\$ 1,749,096	\$ 5,320,752	\$ 5,859,487	\$ 8,759,260	\$ 9,680,477
Net Income	\$ 358,120	\$ 3,047,273	\$ 3,464,208	\$ 5,631,279	\$ 6,281,933

5-Year Financial Projection

Pilot commodities for CPC contract:

- ▶ **Corn, Soybean and Cocoa – Year 1**
- ▶ **SRW Wheat, HRW Wheat and Sorghum – Year 2**
- ▶ **Canola, Ethanol and Lean Hog – Year 3**
- ▶ **Live Cattle and Feeder Cattle – Year 4**
- ▶ **Cannabis and Hemp – Year 5**

- ▶ **5-year IRR: 52.35%**
- ▶ **5-year NPV: USD \$13,019,586**
- ▶ **10-year NPV: USD \$33,110,157**
- ▶ **5-year EBITDA: USD \$25,120,343**

Futures Volume Projection (CPC) w/ market assumptions					
Year	2023	2024	2025	2026	2027
Corn	15,194,170	29,642,975	28,915,893	28,206,645	27,514,794
Soybean	10,289,332	20,469,581	20,361,076	20,253,147	20,145,789
Cocoa	2,760,987	5,763,203	6,014,971	6,277,737	6,551,983
Canola	1,272,781	2,634,167	2,725,855	2,820,736	2,918,918
Sorghum	413,383	843,301	860,167	877,371	894,918
Lean Hog	2,314,582	4,695,852	4,763,500	4,832,123	4,901,734
Ethanol	123,238	217,827	192,510	170,134	150,360

Milestones

Objectives

- ▶ Use of futures contracts to mitigate climate change risk through good agricultural practices. Crop cultivation accounts for **49.2%** of total GHG emissions in agriculture.
- ▶ Create additional revenue for farming and agribusiness sectors.

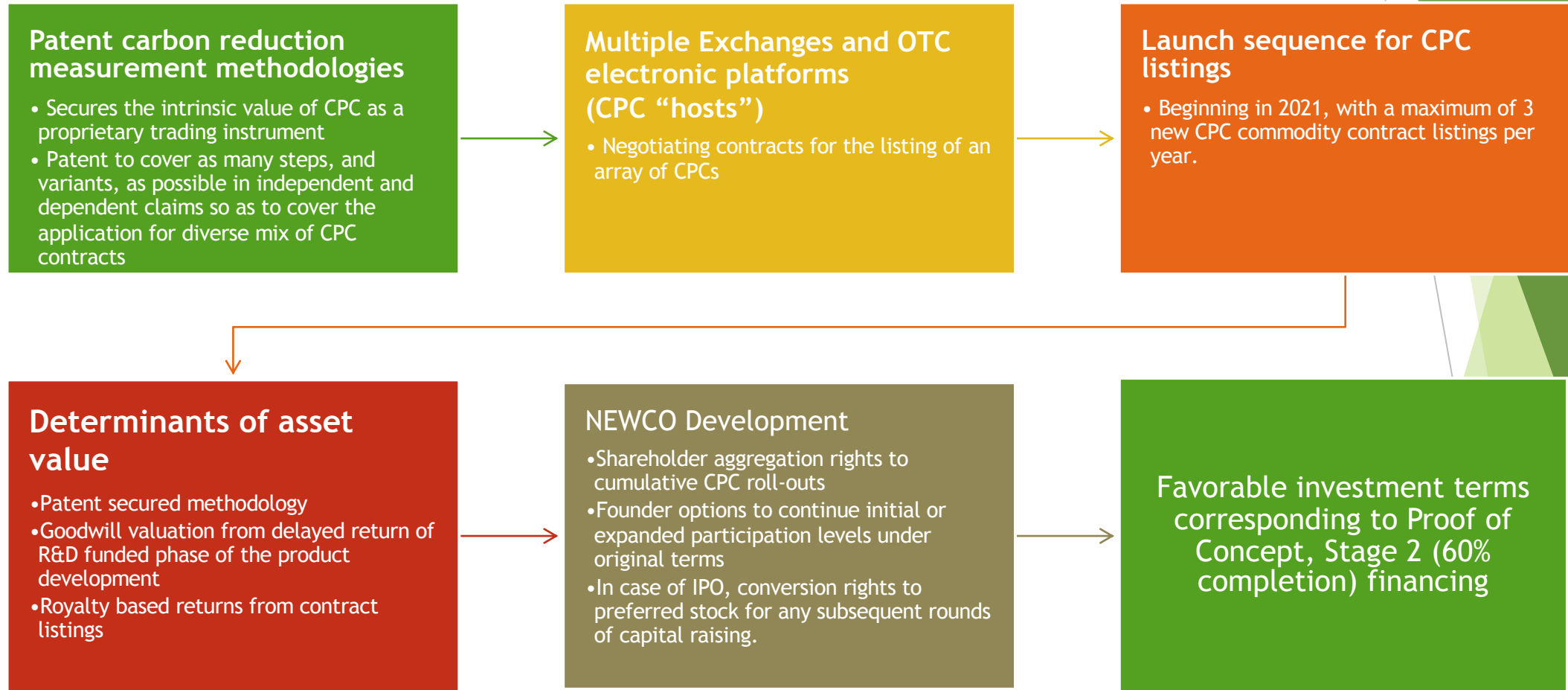
Roadmap

- ▶ Phase I:
 - ▶ Data collection
 - ▶ Data verification, authorization under VERRA registry protocol
- ▶ Phase II:
 - ▶ Establish OTC transactions
 - ▶ Initiate negotiations for Exchange listings
- ▶ Phase III:
 - ▶ MMRV (Measurement, Monitoring, Reporting, and Verification) of the impacts of listed CPC contracts.

5-Year Deal Structure

DEAL STRUCTURE (5 Years)		
1> Strategic Investor (NEWCO)		
o Stake @ 49%	49%	\$7,602,135
Phase I, 2023 - Milestone Investment		\$4,105,153
Phase II, 2024- Milestone Investment		\$3,496,982
o Participation: preferential shares + convertible		
o Minority Board representation		
o Exit option—5 years (phased withdrawal rights) + 5 years (extension for all 3 commodities)		
2> Strategic investors (s)		
o Stake @ 20-30%	20%	\$3,102,912
Phase I, 2023 - Milestone Investment		\$1,675,573
Phase II, 2024- Milestone Investment		\$1,427,340
o Participation: preferential shares		
o Majority Board representation		
o Exit option—5 + 5 years (extension option for all three commodities)		
3> Investor		
o Stake @ 10%	10%	\$1,551,456
Phase I, 2023 - Milestone Investment		\$837,786
Phase II, 2024 - Milestone Investment		\$713,670
o Shared distribution rights		
o Co-calculation agent option @ billable fees only under ACR option which cannot be before approval of Board/IC		
o Minority Board representation		

Investment Strategy



Investment Participation

- ▶ Stage IV, Proof of Concept: completion of pilot OTC for CPC corn, CME negotiations
- ▶ Launch CPC project/2023 (CPC Hemp grant with Lincoln U approved)
- ▶ Deal structure options designed to afford investors maximum leverage
 - ▶ Low-level of paid-in capital, the threshold for which is determined by the costs to finalize product development and complete product launch

ESTABLISHMENT OF NEWCO/CPC in Year 2023
\$15,514,561

IRR	52.53%
NPV(up to 49%)	\$13,015,586

Management/Partner Team



Richard Gilmore, GIC Group, President/CEO

- ▶ Former Special External Advisor to the White House and USAID on Global Food Security
- ▶ Trustee for Nutrien, Board member-Swiss investment group, and corporate and public sector Advisor
- ▶ PhD, International Economics and Trade, Fulbright and Rockefeller Foundation fellowships



ucrop, (Partner for Data Verification)

- ▶ CPC data authentication and verification responsibilities

Nathan DiNiro, CEO and Founder, Full Granklestein Ventures, Inc. (Partner/Blockchain Specialist)

- ▶ Blockchain securitization of CPC data.

Steffen Mueller, Principal Economist, Bioenergy, University of Illinois/Chicago (Partner/Mass Balance Specialist)

- ▶ Mass balance certification for CPC commodity deliveries