CVA COLLECTION 2023

CVA
Corporate Value *Associates*

"CVA has remained an independent, high-end, and global strategy boutique. Since our inception, we have focused on a selected number of forward-thinking clients and on a selected number of topics where we believe we can make a real difference to our clients and create value for the world. In a consulting industry where fashionable topics and buzz words come and fade away so quickly, we choose to specialize on five 'disruption platforms' where we can provide a unique expertise: 'Energy and Circular Transition', 'New Service Models', 'Healthcare', 'Agri-food transition' and 'Auto-mobility'. CVA Collection 2023 introduces the topics where we have deep convictions to share and where we think we can make a real difference for our clients."

Paul-André Rabate
Founder and Managing Partner

Anticipate the future low-carbon H2 supply (in Europe)

EU authorities have realized the criticality of low-carbon hydrogen to tackle medium-term energy, industrial decarbonization and sovereignty crises. Europe has significantly raised its low-carbon H2 consumption targets (to 20 MT by 2030), and is considering a wide range of production options.

However, **planning for any future H2 mass-scale supply system remains a black box** for private and public players alike.

CVA's Energy & Circular Transition (ECT) team has developed a **dedicated H2 market-design tool to support industrial and public players in their short-to-long term green H2 sourcing strategy.** Leaders and decision-makers need to understand the market's natural end-states, uncertainties, and identify the valuable no-regret moves to act on today.

A few highlights:

- **Sovereign H2 supply will be insufficient in most EU States** to cover demand, constrained by local production capacities, and limited willingness of consumers and taxpayers to pay for significantly higher production costs
- Millions of tonnes may be imported (up to 60% of 20-30MT by 2040):
  - For pure H2 usages: mainly from North African countries via H2 sub-sea gaseous pipeline. Solar power competitiveness offsets assets' lower load factors and high midstream costs and avoids e-carriers/e-fuels dehydrogenation costs
  - For e-fuel usages: from international solar-intensive countries with synthetic liquid fuels production hubs, via inter-continental maritime supply chains
  - From "sunbelt" countries (Spain, North Africa, Egypt...): solar-based green H2 remains competitive to supply the north of Europe (Germany and Benelux) vs. wind based production in the North Sea but this calls for a reorganization of the gas flows at international level from South to North

CVA's strategy competence together with **decarbonized H2 market modeling tools** and industry expertise **help clients navigate the H2 and P2X supply markets** to anticipate the future and structure today's winning strategic bets.

Speed up the next generation of nuclear energy

The growing need for low-carbon electric and thermal energies has led to a **renewed interest in nuclear power as a reliable source of low-carbon electricity and heat.**

However, traditional large-scale nuclear reactors have faced some challenges related to new build costs and delays as well as operational and technical complexity, leading to the exploration of alternative pathways such as **small modular reactors** (SMRs) and **advanced modular reactors** (AMRs).

These technologies offer more flexibility (smaller capacity, multi-energy usages), cost-effectiveness (modularity), ease to implement safety systems (active and passive) and, for certain technologies, significant waste reduction. Yet, their feasibility and potential must be carefully considered in the low-carbon future energy mix.

CVA has a unique understanding of the challenges and opportunities involved in the deployment of SMRs and AMRs (competitive advantages, time to market, regulatory constraints, value sharing between public and private investors, positive externalities along the full value chain ....). CVA **designs new business models and legal structures that bring together multiple stakeholders** such as institutions, utilities, nuclear developers, and industrial clients to deliver maximum value and mitigate risks at each stage of the development of a nuclear project.

The CVA ECT team has the knowledge and expertise to support clients in **assessing the potential of these technologies over the long run and developing strategies** for deployment and adoption.

CVA supports a wide range of clients in the energy sector but also industrial players looking for cutting-edge paths to abate their carbon footprint. CVA offer includes market analysis, regulatory analysis, industrial business cases development, stakeholder management, and covers all technology use cases, including the impacts on the full nuclear fuel cycle.

CVA's ECT team is passionate and fully committed to help clients navigate the complex landscape of new nuclear power generation and assess the real potential of these alternative pathways.

Green thermal energy: the last frontier of decarbonization

Decarbonizing a country implies considering the diversity of end usages related to energy consumption, with their technological specificities and compatible energy fuels. In Western countries, some usages are difficult to abate and cannot be addressed with electricity-centered technologies/ green electricity supply. Thermal energy belongs to that group: **some thermal qualities** (medium to high temperatures, steam) **require outputs which are difficult to produce by electricity-based technologies.**

CVA's ECT team has supported multiple clients (ESCOs, utilities) to **understand what the future of thermal energy could be to achieve full decarbonization** (scope 1), or net zero status (scope 1, 2, 3). These projects led to important key results and the development of **strategic tools and assets to support decision making for CVA's clients,** including:

- A methodology to assess, for a given thermal asset, the best mix of technologies to minimize complete costs, reduce the carbon footprint while addressing the heat quality requirements
- The **profiling of typical green thermal assets,** allowing clients to define the best architectures and portfolio of technologies to decarbonize thermal energy
- Strategic recommendations for **thermal asset operators,** allowing them to transition their portfolio towards a carbon efficient status, while maintaining their competitiveness

Embrace the future of green marine fuels

The **shipping industry** is facing increasing pressure to **transition to low-carbon fuels.** It is challenging due to the complex regulatory landscape, technical barriers, and high transition costs.

Decarbonization options for marine fuels include electrification, biofuels, and hydrogen-based fuels. Among these options, **clean ammonia is a promising solution** due to its high energy density, versatility, and scalability.

CVA has been a reliable partner to **blue and green ammonia producers,** leveraging its expertise in both marine fuels and low-carbon economy. As a trusted advisor, CVA is dedicated to **helping marine fuel producers navigate the transition towards a low-carbon future:**

- Monitor the evolution of the regulation, R&D projects, industry standards and technologies
- **Identify opportunities for clean marine fuels,** including clean ammonia and other options
- Prioritize initiatives to reduce carbon emissions and improve the carbon footprint
- Facilitate the development of partnerships
- Design product offerings, market strategies, and pricing models
- Support the **implementation of low-carbon projects** (partnerships, M&A, infrastructure investments, and logistics strategy)

Redesign customer journeys and processes in a customer-driven and Data-native way

Most services companies are currently facing a **four major challenges at the same time:**

- **Become truly 'customer-centric'** as differentiation is shifting towards customer experience
- **Simplify processes** to avoid losing customers along the way and improve profitability
- **Reduce the carbon footprint** and demonstrate a real commitment against global warming
- **Attract 'Talents'**

To cope with these challenges in an ambitious yet very pragmatic way, CVA has developed a unique methodology, CORE® (for **C**ustomer-**O**riented **R**adical **E**fficiency). CORE® **redesigns** each customer journey and process **end-to-end,** in a **'data-native' way** under the **threefold constraint of customer satisfaction, costs and carbon footprint.**

CORE® has been deployed on a large scope of processes (Business and Support), delivering spectacular results each time:

- Improved customer satisfaction and NPS up to +20 pts
- Simplification and drastic reduction of the number of processes (in a ratio of 1:10)
- Improved end-to-end process efficiency by more than 50%
- Redirection of 20% to 35% of investments (especially IT) towards future-proof solutions

Steer financial returns, customer satisfaction and ESG in an integrated way

With the transition from large service industries towards a digital 'experience economy', companies have been pushed to focus more and more on customer satisfaction.

Today, as we are evolving towards a more **'purpose'-oriented economy, social and environmental impacts are also becoming key performance indicators** for all service providers, with a customer base and a workforce that is looking for meaning, well-being and purpose.

Many companies are already steering **financial returns, customer satisfaction, ESG impacts and employee satisfaction.** Yet, these often-conflicting dimensions are very often addressed in a dissociated manner (in 'silo') across different functions, resulting in suboptimal decisions. At CVA, we believe that it is time to consolidate those four dimensions and indicators into an **integrated management tool: the New 'Integrated' Scorecard** to enrich the strategic dialogue and make the right **trade-offs.**

CVA supports its clients in designing and implementing this new Integrated Scorecard leveraging D**ata and AI capabilities:** define the right KPIs and proxys, identify reliable sources, set-up a data governance and facilitate the transition towards a smarter way of management at each level of the organization.

Evidence how innovative medicines can contribute to the decarbonization of healthcare systems

With healthcare systems accounting for ~4-5% of global carbon emissions, leading pharmaceutical firms are reflecting on how to reduce the carbon emissions of their own operations. Beyond their own scope, companies can support the decarbonization of patient journeys thanks to innovative medicines.

A new drug or vaccine can lead to better uptake and dramatically reduce the usage of healthcare services, resulting in a reduction of the volume of carbon emissions.

Blending its health economic expertise with its experience in decarbonization, CVA has developed a methodology that evidences how innovative medicines reduce greenhouse gas emissions throughout the patient care pathway.

Navigate the new context of inflation

Inflation combined with pressure on healthcare budgets and reimbursement constraints, is posing major challenges for pharmaceutical companies. They are trying to limit margin erosion resulting from price cuts, the increase of claw back mechanisms, volatility of global supply chains and elevated production costs. Managing spend and procurement efficiently and optimizing demand management through product and portfolio optimization, has never been more important.

At the same time, Health Authorities are ever more aware of the potential risk of supply shortages and the importance of sovereignty, raising strategic questions about where and how to adopt a 'protective' approach.

CVA is supporting pharmaceutical players in assessing their stakes and formalizing engagement strategy with key stakeholders, including the Health Authorities, to ensure sustainable strategies to the benefit of all parties involved.

Maximize customer value through anticipation

In a context of increasing requirements for drug regulatory approval, recommendation and reimbursement, pharmaceutical companies need to anticipate early-on stakeholder's expectations in the drug clinical development plan to maximize the likelihood of success at launch.

This anticipation is not straightforward, as it requires multiple perspectives, ranging from pharmacopeia constraints, to recommending bodies, payers' expectations and patient needs.

Large organizations need to better listen to the "Voice of Customer", and, to do so, reconsider how they work across functions (R&D, medical, market access, planning, industrial, ...) to develop future-proof therapeutical solutions in terms of manufacturing processes, commercial value proposition and quality control procedures. Differentiation is spanning beyond science and economics towards environmental and societal considerations. Manufacturers should consider increased investment in generating evidence that sets them apart from the competition and that integrates the patient perspective to reflect the total value created for health, economy and planet.

At CVA, we have collected a lot of insights to monitor these trends and adapt our client's organizations accordingly. This allows our clients to differentiate themselves through earlier gathering decision-makers insights and patient activation.

Design and implement a sustainable Agri-Food value chain (end-to-end)

Sustainability is more than ever a **license to operate,** especially in the world's food systems, which are responsible for more than one-third of global anthropogenic greenhouse gas emissions. And beyond building resilience, leading Agri-Food actors are integrating sustainability into their business strategy to **take a relevant advantage.**

Yet the agriculture sector remains difficult to control and challenging to scale-up. Each crop or livestock depends on its local climate and terroir and is characterized by an incompressible life cycle. As a result, it takes long time to get the proofs it works, and both the **funding** and the roll-out of **innovative practices** often need agility and local adaptations.

For 35 years CVA has been supporting clients **in the whole Agri-Food value chain,** from natural resources to Ag-input suppliers to farmers to food manufacturing processors to distributors and all kinds of stakeholders including investors, insurers and circular economy players.

This holistic experiences acquired through projects sometimes combining the expertise of both Agri-Food Transition and Energy & Circular Transition platforms, is now optimized in an **end-to-end sustainability framework:**

- "The why": Determine sustainability aspiration, translated into objectives, KPI and milestones
- "The what": Refine initiatives and complete sustainability roadmap covering Environment, Communities, Workers, Suppliers, Customers, Governance
- "The How": Frame the delivery model, operations and partnerships
- "The enablers": Improve communication and stakeholder management

The framework can be easily **customized** to each client's sustainability program and value chain coverage:

- Upstream: focus on Ag inputs and farmers
- Midstream: focus on manufacturing process
- Downstream: focus on distribution, marketing & sales

Continue to drive towards the (EV) automobility end-game

The developing trends of recent years continue to push forwards, including: scaling of the emerging.

EV ecosystem of vehicles (incl batteries), industrialization of charging infrastructure, digital-as-standard, and continued growth in usership models. This is leading to a blurring of the lines between traditional player roles, where all bets are still open (to some extent) and adjacent players continue to develop their value propositions, including recycling, oil & gas, energy, banking and mobility players.

To prevail in the endgame, players need to know how to position on these inter-related value chains, and how to leverage partners to provide intuitive and cost-effective offers to customers. Even in a more uncertain economic context, players need to focus on key strategic areas, otherwise prime footprints may be captured by "winner takes it all" investors. The resulting ecosystems can provide best-in-class experience, substantial ESG and cost of ownership advantages & strong customer retention.

CVA continues to support clients from the automotive, leasing, energy, infrastructure, retail and finance industries in prioritizing and developing their future positioning for the endgame:

- Matchmaking for large-scale alliances, and target identification to find the right approach to complement own offerings, and maximise share of accessible future value pools, including EV-specific capabilities, re-organization of distribution, sales, aftersales and player repositioning
- Scaling and implementing large-scale projects, including CPO & EMSP network design, build-up, operating models and selection of suppliers and utilization partners
- Assisting in disruptive improvement of strategic capabilities including novel digital models, while radically building back legacy to streamline overall operating models and set free resources for digital development.

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