

INVENT FOR SOCIETY

Bringing to life what's next



FOREWORD



Cyril Garcia,
CEO Capgemini Invent

Digital technologies are causing massive global disruption. They are enabling new ways of doing things across all areas: From the economy, health, education, defense, and agriculture, to social systems, sports, and culture.

This changes the way society thinks, communicates and acts – bringing huge opportunities for good. As a globally renowned technology and digital leader, here at Capgemini we have the responsibility, the ambition and the means to contribute to solving major societal questions that are shaping our future world – and at Capgemini Invent we are contributing to realizing this ambition.

We use our multidisciplinary expertise both to achieve business results for our clients and to tackle some of the biggest challenges society is facing. To this end, throughout our business we aim to minimize environmental impact, support disadvantaged people, contribute to society, and share the value we create.

That's the rationale behind Invent for Society. It demonstrates how social impact is part of the fabric of what we do every day for our clients. Within Capgemini Invent our team members are engaged in projects that shape the future in areas that include waste reduction, energy transition, education, digital inclusion, predictive healthcare, employment, poverty prevention and housing. And the list continues to grow.

What's unique about our business is our ability to conceive new ways of doing things and bring them to life through our multidisciplinary approach – combining strategy, technology, data science, and creative design. The essence of our mission is to deliver breakthrough ideas.

You'll learn more about how we are working to achieve this on the following pages. Our impact would be impossible without our customers, and we thank them for their continued support.

HOW WE INVENT FOR SOCIETY



At Capgemini Invent we combine our creative and technological skills with a will to contribute to a better society. One big ambition. And it's 100% compatible with the Capgemini Group's seven values: Honesty, Boldness, Trust, Freedom, Modesty, Team Spirit and Fun.

Here are the characteristics that define our approach to making an impact in Capgemini Invent:

- **Inclusive:** All our people can be part of projects and initiatives that make a social impact, putting forward ideas, engaging with clients, and making a tangible difference
- **Real world:** Grass roots-up ideas stemming from the real-world challenges our clients face are the key success factors to innovating for a better future

- **From the top:** Our leaders are role models, sponsoring external and internal initiatives, providing training and making sure we contribute to the broader Capgemini Group sustainability ambition
- **Adaptive:** At Capgemini Invent we recognize that, with the world around us changing, we need to adapt and focus on how we add value for our clients in areas they may not have valued before, yet have a big impact on society and our planet.

In the following pages we describe some of the projects and partnerships in which these characteristics have helped us to make a difference.

INVENTING WHAT'S NEXT FOR SOCIETY

Invent for Society encompasses three areas:

HEALTH AND SOCIAL CARE



Helping our clients to reinvent the way health and social care are provided to citizens

ENVIRONMENT



Helping our clients build and deliver their low carbon strategies

DEVELOPING TRUST IN AN INTELLIGENT WORLD



Making the most of data and artificial intelligence, while reinforcing digital human rights

These areas reflect both current and future engagements with our clients and our ongoing work with thought leaders and sustainability pioneers worldwide. Each is described in more detail in the following pages.



HEALTH AND SOCIAL CARE



The digital revolution offers countless opportunities to transform the provision of health and social care, with technology and data science at the heart of new delivery approaches. We partner with clients to obtain maximum value from healthcare data, and leverage AI and federated learning to build deeper datasets and ensure true privacy.



We work with hospitals, life sciences companies, insurers, government ministries and health authorities, helping them to deliver new value by:

- **Creating digital platforms** – we’re co-developing shared digital platforms with universities, hospitals and regional health authorities to provide a single interface for the patient all along the healthcare pathway. These will provide disease management services, coaching, and prescription conciliation (Rx)
- **Designing health and sports data hubs** – we’re connecting ministries and states with the data they need to transform healthcare provision
- **Creating thought leadership on the “future of care”** – we’re collaborating with think tanks and medical leaders, leveraging our capabilities in design to develop a vision of home care for 2030 and beyond, and discussing AI solutions in social services
- **Co-chairing university programs** – these programs aim to provide insights into AI to medical doctors and healthcare professionals, as well as to co-create new templates for healthcare skills based on emerging AI
- **Working with philanthropic institutions** – we’re supporting their real-life research programs, for instance to strengthen polymedication of cancer patients, supported by large e-cohorts
- **Developing data-led programs** – this sees us taking advantage of a regional dataset on trauma care (Traumbase), using predictive analytics and rethinking the healthcare pathway in the context of polytrauma, where a patient has multiple trauma injuries.

Key projects

Health Data Hub

After the Villani report defining the French Government’s artificial intelligence strategy, a flagship project has been agreed in the country’s healthcare sector: The Health Data Hub (HDH). It will be a single point of contact providing access to all healthcare data, such as data stored by the national health insurance regimes (50 million users), hospital data warehouses, research cohorts, biology and imagery data stores.

The HDH will provide a cloud infrastructure for data processing and computational capabilities. It incorporates techniques for using specific data protocols to safeguard personal data through the use of pseudonyms, enabling regulatory compliance with the likes of GDPR. It will be supported by a national agency, investing in data sciences teams. The electronic health records (EHRs) of every

French citizen will be stored in the HDH and used in areas such as research, support for healthcare personnel, management of health, and follow-up and information for patients.

We have had an eight-strong team supporting this project since its inception in November 2018. We have architected the Hub’s technological platform and managed the project portfolio, for example by defining projects, closing deals with partners, and delivering project support. We have also supported the Hub’s governance, which is a complicated process. It sees us working with three different committees, endorsing responsibilities for data management responsibilities, ethics and privacy, liaising with scientific and academic partners, and carrying out technological horizon scanning. The project is still ongoing, with a Minimal Viable Product due for release on 1 September. We expect to be involved until at least December 2019.

Creating a healthcare panel

In partnership with two universities and polling institute IPSOS, we have set up a panel to discuss key questions on important healthcare issues. These will include whether CRIPR CAS 9 gene editing research should be allowed on human embryos, and whether vaccination against flu should be mandatory for healthcare professionals. Monthly interviews will be conducted with medical professionals recognized for their expertise in the field of health to assess the level of consensus (or lack of it) on technological developments. The nature of the questions is such that they require expert collective intelligence, enabling us to provide consistency and assurance that leading experts are joining the process. This initiative will promote scientific debate on sensitive issues, and the panel expects to publish some its findings over time.

For more information, please contact:

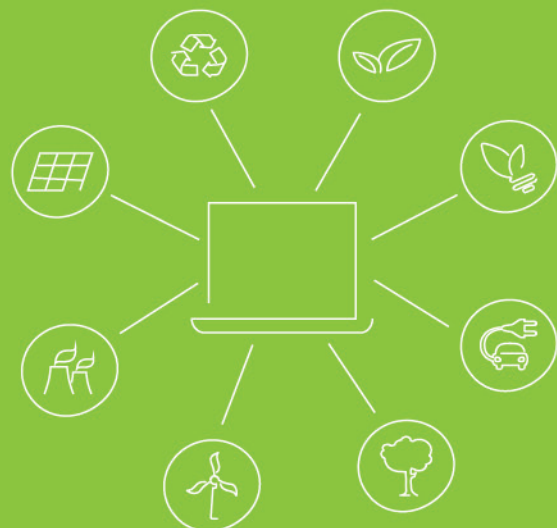
1. *Sponsor:* **Etienne Grass**
2. *Other members:* **Richard Hayes, Pierre Demeulemester, Arnaud Flanquart, Julien Rutard, Alexandre Raynaud**



ENVIRONMENT



In 2015 the United Nations Climate Change Conference (COP 21) negotiated the Paris Agreement to limit global warming to 2 degrees Celsius compared to pre-industrial levels. To deliver on this target, all sectors of our modern economies must significantly reduce their greenhouse gas emissions. More and more organizations are thus working towards becoming carbon neutral well before the middle of this century.



At Capgemini Invent, our ambition is to help our clients design and execute their transformation to achieve their low carbon ambition, enabling the Paris Agreement's 2°C scenario. We partner with clients to:

Increase the share of low-carbon fuels for all types of transportation – including electric, natural gas, and hydrogen

- Help industrial organizations, buildings and cities to reduce their energy consumption and CO2 footprint
- Leverage AI and digital to reduce CO2 emissions and create new business models

To make a positive impact on society, we work with:

Utilities, oil & gas majors, and developers to increase their share of renewables –

we're helping to develop the growth strategy for a leading energy firm's renewable offering, enabling it to be a European renewable leader. We're also supporting the development of biogas in the French gas network, and setting up an e-mobility business unit for a client, for whom we're defining the digital vision to support the development of its renewable activities. In the UK, we're defining the governance model for the partnership management of a firm's domestic solar business, and we're designing and building operational services to enable 5% of the UK population (3m people) living in high-rise buildings and large properties to have access to Smart Meters, leading to a reduction in energy consumption. Some of the largest electricity providers are also making energy savings as a result of our support.

New market entrants to create energy transition offers –

we're defining new business models on the energy storage market, as well as a sustainable financing offer. Our green/clean offers have seen us entering the gas and power retail markets, and we're helping brands to reposition in the context of how leaps in battery technology can help the planet and human society moving forward.

Equipment manufacturers' new business model for energy transition –

we helped to set up a global battery manufacturer to produce battery cells enabling the transition from fossil fuels to clean energy, and we've developed a user-friendly electric vehicle (EV) charging app.

Investors to accelerate funding for energy transition –

we're identifying and scouting startups and innovation projects, as well as supporting the development of a dedicated cleantech acceleration program.

Energy consumers to reduce their energy and CO2 footprint –

we set up the first French renewable power purchase agreement, helped to qualify and select providers for renewable energy, and defined the 2030 climate strategy and project set up. We are also helping a client

to optimize energy mix consumption leveraging data and AI. And we're building green IT reporting, helping cities to develop a new mobility concept, and enabling some countries to run carbon free for weeks at a time.

Key projects

Techstars Energy Accelerator 2019 – For start-ups working on the future of energy

The Techstars Energy Accelerator is a global startup accelerator for those who have the vision to shape the future of energy by daring to disrupt the energy industry. We are a proud partner in this venture, supporting startups through every step of the journey. The world's ten most promising energy innovators and entrepreneurs will be selected to participate in the Techstars Energy Accelerator program. Each of the ten selected startups will receive funding, as well as a three-month accelerator program to boost their business. This unique partnership provides a great opportunity for companies, and invests up to \$120,000 in the chosen start-ups that aspire to disrupt the industry and shape energy platforms for the future.

Innoenergy – European Battery Alliance

In October 2017, the European Commission launched the European Battery Alliance (EBA) to allow all Europeans to benefit from safer traffic, less-polluting vehicles and more advanced technological solutions, while creating a competitive and sustainable battery cell manufacturing value chain in Europe – a market with an estimated annual value of €250 billion by 2025. As part of this, Capgemini Invent is supporting InnoEnergy, an innovation fund for sustainable energy across Europe supported by the European Institute of Innovation and Technology. InnoEnergy has been mandated by the EC to steer the EBA250 initiative, gathering the voices of 250+ industrial and innovation actors all along the value chain, from mining to recycling.

A mixed French and Swedish Capgemini Invent team has been supporting InnoEnergy for EBA since summer 2018 by:

- Structuring the program and supporting the translation of actions into strategic projects
- Managing, coordinating and ensuring implementation of these projects

This resulted in the referencing of more than 200 start-ups and projects, as well as the design and launch of 10 projects to build and reinforce a competitive and sustainable battery industry in Europe.

For more information, please contact:

1. *Sponsor: **Roshan Gya***
2. *Other members: **Florent Andrillon, Marianne Boust, Arthur Arrighi de Casanova, Julien Cossé, Ellef Kurre, Gry Helene Pettersen, Antonio Alonso Rubio, Torben Schuster, Karen Thompson, James Lally, Alain Bollack***



DEVELOPING TRUST IN AN INTELLIGENT WORLD



Technology innovation and adoption are advancing at a rapid pace, while all areas of the economy pursue digital transformation. This challenges not only regulators, but all actors in the technology arena to uphold strong ethics and values.



We partner with clients to combine data and AI, business performance and human rights, as a cornerstone of tomorrow's leadership. We reinforce citizens' privacy by protecting their personal data and giving them control of it. And we place trust and ethics at the heart of our development of AI, making AI fair, regulated and reliable by design; preventing bias or discrimination, and preventing harm to people or the environment.

We work in collaboration with:

Institutions, regulators and think tanks –

we're reinforcing human rights and fundamental freedoms within civil society by contributing to the New Governance initiative – linked with institutions and regulators (including the European Commission and CNIL) – that are designing technological, legal and business standards for personal data protection and circulation. We are also addressing trust and ethics issues in AI as a founding member of the Impact AI think tank through the analysis of concrete use cases and providing feedback to European Commission guidelines for trustworthy AI.

Private companies and public organizations –

we help our clients implement major data protection programs to ensure they comply with GDPR and respect citizens' privacy rights. We help them embed privacy in any new projects involving personal data. We're also working with our clients to design and implement their 'sustainable AI' visions, and we help them implement oversight frameworks to ensure the design and use of a fair, reliable and governed AI. We practice what we preach and within Capgemini we apply the highest privacy and ethical standards in our day-to-day operations.

Key projects

We are assisting a major European bank in its ambition to take a best-in-class approach to trusted data and the ethical use of AI. This sees us supporting, at Group and Business Units level, the design and implementation of a major GDPR program, significantly reinforcing the protection of employees' and clients' personal data, and helping the bank define its ambition to address trust and ethics in AI. This involves evaluating their maturity in relation to European Commission guidelines on AI, creating policies and a roadmap to apply the principles of sustainable AI by design in their projects.

For more information, please contact:

1. *Sponsor:* **Valérie Perhirin**
2. *Data Privacy leader:* **Isabelle Budor**
3. *Sustainable AI leader:* **Thibault Lafont**

WORKING WITH PARTNERS: COMMITTED TO A BETTER FUTURE TOGETHER

At Capgemini Invent, we work with global institutions including the [United Nations](#), Women's Forum, and World Economic Forum, to demonstrate how private companies can come together as change agents and help society move forward positively. For example, in March 2019, we facilitated a debate with UN Member States, UN managers, and global leaders from the public and private sectors examining the roles of artificial intelligence (AI) and blockchain technology in achieving the 2030 Sustainable Development Goals. We are global partners of the annual [World Climate Summit](#) – the leading forum for business and investment-driven solutions to climate change. Being held in December this year in Chile, this Summit is the primary meeting place for those working to implement the Paris Agreement. It drives policies and projects, while creating synergies with the public and private sector. This is viewed as one of the best ways to design a new deal for the world in which we live today. Additionally, our teams comprise experts who share insights on energy transition and sustainability – including at RE100 Global Events, International Electric Vehicle Symposiums, Energy Week, Vivatech, Solar Power events, etc. We have worked on impactful editorials in the media, and we publish the World Energy Markets Observatory once a year, and our newsletter the Energy Transition Observer.

Capgemini Invent is wholly in tune with the broader Capgemini Group's ambition to be Architects of Positive Futures.

Our Group priorities are clear:

- Reduce our environmental footprint in line with ambitious science-based targets
- Support our clients with their sustainability challenges

For 2020: Our target is to reduce by **20%** carbon emissions per employee compared to 2015. **We are becoming a net-zero greenhouse gas emissions company.**

For 2030: Our ambition is to help our clients **save 10 million tons of carbon.**

Our Group DNA includes strong convictions and actions on sustainability and climate strategy. Our objective is to reduce both our own carbon footprint and emission targets and those of our clients, working together to significantly reduce our common emissions in the short and long term.

Capgemini Invent for Society will draw on the inventive mindset of our people to deliver on these important sustainability aspirations within our program to provide health and social care for people, protect our environment, and develop trust in an intelligent world. What will you do?

ABOUT CAPGEMINI INVENT

As the digital innovation, consulting and transformation brand of the Capgemini Group, Capgemini Invent helps CxOs envision and build what's next for their organizations. Located in more than 30 offices and 25 creative studios around the world, its 7,500+ strong team combines strategy, technology, data science and creative design with deep industry expertise and insights, to develop new digital solutions and business models of the future.

Capgemini Invent is an integral part of Capgemini, a global leader in consulting, technology services and digital transformation. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of over 210,000 team members in more than 40 countries. The Group reported 2018 global revenues of EUR 13.2 billion.

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CONTACT

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