



# Taking an Active Role in the Industry Transformation

The World Economic Forum Engages the Foremost Leaders of Industry and Society to Shape Global Agendas

Buzz words like climate change, plastics waste, supply risks, or digital transformation are describing current challenges facing the chemical industry. At the same time, our fast-changing world is getting more and more complex, with interconnected problems that demand collaborative efforts – e.g. the Covid-19 pandemic. Governments, enterprises, and civil society are undertaking numerous initiatives to search for more sustainable solutions and take action. The World Economic Forum (WEF), established in 1971 as a not-for-profit foundation, offers platforms to integrate and aggregate these efforts. The Chemical and Advanced Materials Industry program is headed by Fernando J. Gómez, a versed industry expert, who joined the Forum in 2010. Michael Reubold and Ralf Kempf discuss with him the chemical-industry-related topics that are high on the WEF's agenda.

**CHEManager:** *To start with, could you briefly explain the World Economic Forum's overall mission and the instruments or methods applied to fulfill it?*

**Fernando Gómez:** The World Economic Forum has a very ambitious mission, namely “Committed to Improving the State of the World”. As you may imagine there is no single way to fulfill this, which means the Forum has to be one of the most dynamic organizations globally, constantly changing and constantly striving to innovate.

A few things are still very characteristic, though, and first of which is the multistakeholder principle over which the Forum was founded. If we seek to improve the state of the world, this is



Fernando J. Gómez,  
World Economic Forum



not for politicians alone, for business leaders alone, or for academics alone. Improving the state of the world requires a platform where the views, the experiences, the aspirations, the capabilities, and the resources of many can converge to catalyze change.

The second principle I would like to highlight is global leadership. Only when leaders are engaged can we really increase our chances of effecting change. Leaders can execute, partner with each other, agree and make decisions.

As such, our methods to catalyze change have expanded. We are still recognized as the foremost convener, but to go beyond bringing people together, the World Economic Forum has developed a few additional roles

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*“Chemical companies have evolved incredibly in their approaches to innovation in recent years.”*

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through the last five decades. It curates peer-level communities of interest, where members interact openly and develop collective understanding of issues that are relevant to their sector, geography or their corner in society.

Along the way, the forum saw the need to create a trusted space for the collective knowledge and the shared insights that these communities were developing to be accessible and serve decision making. Interestingly, the Forum had to develop its own tools to illustrate the complexity and interconnectedness of this knowledge. We ran initiatives and projects, which were for some time the main vehicle to turn those insights into action, and indeed the Forum still supports interested parties as they seek to advance projects. More recently, the Forum developed capabilities to act as a platform, so that it can multiply that impact. It now hosts and contributes to alliances and coalitions that align with its mission — whether or not these alliances were born within the Forum’s activities. It has been quite an evolution.

*In the Forum’s programs and activities, you are overseeing the involvement of partners from the chemical and materials industries. Which topics are high on the community’s agenda?*

*F. Gómez:* These issues will sound very familiar to you and your readers. These topics are inter-related and quite frankly, hard to prioritize, but the current consensus revolves around a few:

**Sustainability:** More specifically reduction of greenhouse gas emissions, development of a circular economy and responsible use of resources.

**Digitalization and the industry:** Encompassing not only the implications of its own digital transformation but its role in the transformation to a much more digitalized society.

**People:** This includes not only the changes in the workforce but perhaps more importantly, the role of our business in society. There is a brilliant opportunity for chemical companies to maximize their contribution to society through collaboration.

*How do you practically work or collaborate with the members of the chemical industry to take action and advance the topics mentioned?*

*F. Gómez:* At the Forum, the tactics are many. To build awareness and shape the industry agendas, the Forum fosters dialogue within and among communities. It holds discussions, issue-specific meetings, brings voices from other stakeholder groups such as innovators, public figures, Nobel laureates, youth and NGOs.

To inform decisions and guide strategy the Forum consolidates, connects and disseminates knowledge, publishes reports, community papers and increasingly uses its social media and digital channels.

To drive collective action and generate impact, it supports its partners and communities as they start new alliances and mobilize the resources needed.

All the above is now in practice with our partners from the chemicals sector. We are now hosting an early dialogue on ESG and our sector, for example — beginning to understand the implications of ESG investing on the sector and creating a space for sharing practices so that the overall adoption of metrics for these environmental, social and governance factors is smoother.

*It is obvious that the chemicals and materials companies have to find ways to reduce the environmental impact of their production in order to help advance the global sustainability agenda. What measures are they taking, what concepts are you discussing with group members?*

*F. Gómez:* By now it is rather well understood that the chemicals industry, like other industrial sectors, needs to dramatically transform its production processes if it aspires to meet the most critical targets in the climate space.

This requires a strong focus on technology e.g. development, de-risking, upscaling and integration, as well as on all the elements of a conducive enabling environment: finance, policy and new business structures. In that area, the Forum has mobilized commitments through the Collaborative Innovation on Low Carbon Emitting Technologies, LCET, initiative, which has brought companies to collaborate in new ways to put the sector on the path to net-zero emissions.

*Innovation indeed plays a central role in developing energy-saving materials, technologies for the generation of renewable energy, and also in establishing concepts such as a circular economy, for instance for plastics. How can the Forum*

*support such approaches to innovation that extend well beyond new molecules and applications?*

*F. Gómez:* Despite the availability of many innovation avenues to chemical companies, we still heavily rely on composition of matter or process innovation as the traditional pathways to solving problems — and these remain competitive areas to a large extent. Nevertheless, chemical companies have evolved incredibly in their approaches to innovation in recent years and the Forum has offered spaces for this transformation, too.

Three areas come to mind:

Innovation requires collaboration well beyond ‘what customers demand’. New entrants, start-ups, new complementary technologies... these co-exist at the Forum in communities such as Technology Pioneers or Global Innovators. Today’s innovation partners include data companies,

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advanced manufacturers or on-the-ground activists. They connect here.

Innovation is distributed across groups, geographies, or maturity stages. Digital platforms like Uplink not only lower the barrier of their interaction dramatically, but also facilitate the collaboration and establishment of partnerships and alliances.

Some of these technologies are so new that no governance structures exist for them to flourish and deliver the most to society — say... blockchain or artificial intelligence, which advance so rapidly that it is hard for governments and society to keep up with fast-paced development. In those cases, to foster responsible innovation, the Forum's Center for the Fourth Industrial Revolution and its affiliate centers around the world engages companies, governments and academics in the co-creation of such governance and policy structures. For example, one of our chemical industry partners worked in regulation in digital trade as it relates to 3D printing. Truly cutting edge.

*To continue delivering socioeconomic value, the industry must lead the process of its own transformation. What is driving this transformation and which topics/aspects does it encompass?*

*F. Gómez:* There is no single dimension that is driving such a transformation, in fact there are many underway as well. Transforming to a more sustainable, more digitalized, more innovative sector is not new. To truly transform there are a couple of important dimensions in which the sector needs to be more deliberate.

First, the transformation to a more inclusive sector: We are not



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done with delivering on the SDGs, and in a society that is at risk of greater division, the chemicals sector has a major transformation opportunity to inclusivity, to closing gaps across the board. Above all, to lead other sectors. This industry has delivered and over-delivered in customer expectations and in meeting performance requirements, but as the world shifts to much more connected schemes, chemical companies need to transform into systemic leaders. Rally others, bring them along, inspire other sectors in changing an entire system. Want a better global food, mobility or energy system? Lead the way! We have demonstrated that, when called to action, we respond. Perhaps it is time to be the caller.

*Demand patterns, and thus supply and value chains will become increasingly dynamic in our VUCA world, putting extra pressure on industry and society. Which programs or initiatives address topics like risk management and resilience?*

*F. Gómez:* Yes, that has actually been a focus area through 2020, both institutionally — e.g. through our Covid-19 Action Platform, which has brought together stakeholders from all sectors to work alongside WHO or logistics companies in solutions to minimize the impact of the current pandemic — and at the specific industry level, in which we supported a group of companies along their journey.

In the case of the chemicals sector, it was important to think not only of the response to a shock like Covid-19 (for example, with masks, hand sanitizer or personal protective equipment) but in the recovery and resilience-building phases. Very early on, it was critical to address vulnerabilities on multiple sides: securing feedstock and other inputs for our own production and securing the movement of chemicals and materials to minimize disruptions to global production of just about everything. There, industry associations did a great job aligning the voice of the industry, especially towards transport and supply chain restrictions.

Nevertheless, we also believe we have played a small role as our partners advanced collaboration in rebuilding sustainable infrastructure, followed society's interests in sustainable consumption and even deployed expertise and protocols to se-

cure a safe return to work. A bit of that happened over our collaboration platform.

*How important for the World Economic Forum's work is public engagement and how do you stimulate it, especially in your industry community?*

*F. Gómez:* Public engagement is an integral part of the World Economic Forum's work, and it, too, has been through an important evolution. For an organization that has consolidated its convening and engagement of peer communities and top leaders, social media and public engagement have opened many channels for society to be part of this change.

It works largely to disseminate insights and views especially of the Forum's communities. It also serves as a way for almost anyone in the world with ideas, with actual ongoing efforts or with specific needs — to put them 'on the radar' of our initiatives and programs. We learn a lot through public engagement and are convinced that the world also learns about issues in a connected and tan-

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gible way through our public engagement.

For chemicals it remains a challenge. Public perception and public understanding of the role of our sector is not straightforward. Unfortunately, the word "chemical" carries a negative connotation — now probably closely followed by "plastic". The many ways in which our sector brings about socioeconomic benefit rarely make their way to a widespread societal understanding. We want to be part of this and have offered our public engagement channels to our partners and other members of our communities — but there is a lot that still needs to be done to reach out effectively, to influence mindsets positively and above all, to retain integrity and thoroughness while remaining impartial. It is a journey, and we are in it!

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