The Covid-19 recovery requires a resilient circular economy

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The Covid-19 crisis has disastrous human and economic consequences, revealing our system's exposure to a variety of risks. The call for a more resilient, circular and low-carbon economic model has garnered support from a growing number of businesses and governments over the past few years, and appears today more relevant than ever. Identifying opportunities, keeping a clear sense of direction and fostering a strong public-private collaboration will help usher in redefined growth towards the next wave of prosperity.

As the pandemic forces us to adapt our daily lives in ways we would not have imagined, it also challenges us to rethink the systems that underpin the economy. While there is no question that addressing public health consequences is the priority, the nature of the equally crucial economic recovery effort raises some interrogations. Should stimulus packages focus on finding the way back to growth by kicking business as usual into overdrive, or could they accelerate the shift that has already started towards a more resilient, low-carbon circular economy?

One way to tackle this polarising question is to reject the idea that rapidly getting back to economic dynamism is incompatible with a wider system transition. Given the sums at play and the unprecedented — in peace times — rise in prominence of public authorities, this isn't a simple equation to resolve, yet there are signs of agreement on the horizon. While the European Bank for Reconstruction and Development has declared it will devote its entire activities to addressing the economic impact of the pandemic, the Investor Agenda group, which collectively manages trillions of dollars in assets, said that "Governments should avoid the prioritisation of risky, short-term emissions-intensive projects."

The recovery effort will, of course, require a variety of strategies. Looking at the pre-Covid-19 landscape, it is clear that momentum had already been increasing around the need for a system reset, with a visible consensus on the potential of a circular model. Over the course of the last decade, a number of leading businesses have stepped onto and invested in this transformative path, while pioneering institutions and government bodies

put forward significant legislative proposals to enable the transition. This is notably true in the European Union and in China but it plays out in other regions as well, at national and municipal levels with the same degree of vitality.

Far from pushing that agenda to the bottom of the list, the current crisis makes the circular economy more relevant than ever, as it holds a significant number of economically attractive answers. The early stages of the Covid-19 crisis have revealed the brittleness of many global supply chains, not limited to but illustrated by medical equipment availability issues, for example. In this specific case, circular principles provide credible solutions: design and product policy factors such as repairability, reusability and potential for remanufacturing offer considerable opportunities in resilience (stock availability) and competitiveness.

It is notably telling that the global refurbished medical devices market is expected to grow by over 10% a year between 2020 and 2025, which represents market opportunities as well as increased asset utilisation rates (therefore less reliance on new raw materials). The importance of these strategies have notably been highlighted in the US, where several state treasurers have urged ventilator makers to make service manuals and repair-related resources available to help hospitals deal with the crisis. This has cost reduction implications which will appeal to cash-strapped public health authorities, but is also conducive to lowering the greenhouse gas footprint, since remanufacturing has been shown by the United Nations's International Resource Panel to reduce emissions by over 80% in key sectors. As witnessed in countries severely hit by the virus, being able to quickly adapt industrial facilities and shift production — of automotive to medical equipment parts, for example — has been crucial. Factoring in that flexibility upstream — by designing both tooling and products to be repurposable and versatile — could be a way to enhance value-creation potential and achieve greater resilience of industry, which are both valuable beyond the current situation.

Another domain in which circular economy appears particularly relevant is the highly sensitive area of food production and distribution. It is well documented that the current industrial agricultural model yields outputs of questionable quality, relies on fossil fuels and practices that are damaging to ecosystems, and is built around supply chains that involve long-distance transport that make it vulnerable to border closures. The dependency on seasonal foreign workforces servicing industrial scale production centres is also problematic in that regard, and farmers across Europe have already warned they probably will need to forget about this year's crop season due

to labour shortages. In certain cities, hastily implemented lockdowns have stressed food supply and emphasised the need for shorter producer-to-consumer models, which have seen a sudden rise in uptake. It therefore appears timely to further explore the potential of large-scale investment in regenerative, peri-urban production, together with digitally-enabled precision agriculture. As the Ellen MacArthur Foundation's research has highlighted, a circular scenario could lead to a 50% reduction of pesticides and synthetic fertiliser use by 2030 in Europe (compared to 2012 levels), while resulting in a 12% drop in household expenditure and better products. Finally, regenerative agriculture is also a powerful force in the climate crisis mitigation arsenal, as circular economy strategies could reduce emissions by 5.6 billion tonnes CO2e, corresponding to a 49% reduction in the projected 2050 total food system emissions.

These two specific examples only constitute a small opening onto the wider possibilities presented by the circular economy when it comes to recovery plans, and there are many areas to explore: think for instance of the staggering amount of office space overcapacity, and what modular design and use patterns could achieve in terms of reduced materials and energy consumption. As governments are looking for ways to move forward, they can do so without straying from their low-carbon commitments by implementing circular economy strategies — this rings true in the construction sector for example, as building renovation quickly imposed itself as an obvious immediate win, combining a *de facto* local activity boost with a necessary efficiency upgrade.

At municipal level, some Covid-19 specific measures have already been taken around mobility and transport. Brussels, for example, has given more space to pedestrians and cyclists and has limited the speed of motor vehicles to 20 km/h across the city. While this does not necessarily illustrate a circular development strategy per se, it shows that the need for change is acted on by policymakers, who quickly create the right conditions for new systems to emerge. In such a dynamic context, circular economy solutions can find the space to become mainstream, as the inherent wastefulness of the current model is highlighted. To stick with mobility, even before business as usual was challenged private vehicles in Europe were sat idle 92% of the time and it's therefore not a stretch of the imagination to think that designing cities for alternative urban transport solutions and better use of urban public space will become key priorities.

As we gradually get a better understanding of the economic ramifications of the pandemic, the ways in which a circular model can contribute to the recovery will be more detailed, and implementation plans more defined. There are already short term answers available, such as the ones highlighted above for food systems or decentralised production, yet it is fundamental to recognise that the effort will need to be sustained, and that its success will rely on the involvement of all stakeholders, working in a logic of co-creation. As governments step up to address the most pressing issues, setting a clear direction and enabling private sector circular innovation to reach scale will allow us to combine economic regeneration, better societal outcomes and climate ambitions.