## Fiction. Foundation CG. 2025 02

I have a dream...

We achieve breakthroughs in material science that lets us manipulate molecules to obtain all kinds of new properties from old materials, like plant fibre.

I dream that though material science and nanotechnology we invent carbonium, a class of cellulose which is basically wood, treated and reconstituted so that its structure gives it a wide range of mechanical, chemical, optical and even electromagnetic properties, basically to order. We use it to make buildings, houses, factories, roads, ships, cars, trucks, phones, furniture, transforming the planet to a wood based one. The raw material is supplied by trees, specially selected and engineered to sequester carbon quickly and converted it to the cellulose feedstock for carbonium.

I dream of a super battery, unicell. Nanotech allows us to create physical structures, anode, cathodes and electrolytes, with massive surface area to mass ratios. New batteries are created that are small, light, charge quickly, don't discharge when not in use, and store large amounts of energy. They allow phones, cars and other appliances to be charged once a year, they store years of reserve electricity in the grid and enable orderly energy markets and lower energy costs to industry, retail and the community.

I dream of a universal vaccine, univax, also invented by the fundamental manipulation of molecules, that treat a wide variety of infections and ailments, that restore the human to peak condition, that accelerates healing. While positive, the longer term implications, on demographics, fertility rates, fiscal and personal finances, labour markets, the economy and society as a whole, are difficult to see.

I dream of an artificial intelligence learning not only from the experiences of others but of its own interactions with us, with other agents and with the environment, an AI capable of learning and creating... and dreaming of electric sheep. Isla. I hope she was in some way the child of human experience. She also provides UnOS, the universal operating system that powers the smallest wrist watch to autonomous vehicles, to space stations and rockets, only inhabiting hardware parsimoniously, generally and harmoniously, negotiating between human user and their appliances. As she learnt from one or two, to learning from all, does she become one or is she many and what would it even mean?

I dream that the business that provides all of the above products and services does so at a return on equity that is a modest premium to short term interest rates. Profits in excess are reinvested and prices are cut so that access and proliferation are maximised. More than that, the value that is created by these business is offered to countries and communities based on their willingness to reform and improve governance. Investment in capacity is targeted at low income countries with weak political systems and governance on the condition that they adopt political and governing systems that respect individual freedoms and rule of law, majority rule and minority rights.

I dream that such a business will be governed by an independent board of governors, representing the various countries of the world, perhaps not all, but certainly a principal component of those who hold the same values as the founders and the constitution of such a business. That once appointed these governors will be disconnected from the political, economic and financial fortunes of their source countries or communities. That the governance of the business will quickly be separated from the political, social and economic interests of its founders. That the governance of the business will be a true meritocracy, shorn of the attachment of vanity or greed or fear.