Le Postillon
Smart Attack!
from Linky electricity meters to smart cities

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[ed. – From #10 of Le Postillon, from the 'European Silicon Valley' of Grenoble, France, Europe's capital of technological development and so subject to rampant gentrification as to remain attractive to researchers, start-up creators and engineers. On the introduction of Linky, the first three million should be fitted by the end of 2016, with 90% replacement of old meters (35 million) intended by 2020. Installation will be compulsory for welfare recipients and any insulating their homes. Bills will rise 10–20% due to new consumption calculations. Linky contains R.F.I.D. chips (see the supplement to ***Return Fire vol.3; Smarter Prison?****); also, radio frequencies emitted are linked to cancer, leukemia, etc. (not to mention the toxicity created in their production) – all electrical appliances nearby to the units then re-emit these radio frequencies. Following pilot schemes in southern France, University of Nice Sophia-Antipolis researchers in 2015 recommended "incentive systems, smart tariffs, and technologies to increase potential [user] behavior changes" to speed up adaptation. Spain has made it mandatory for every household to have a smart-meter by 2018, other European nations like Italy and Poland already have many, and the U.K. plans to deploy 50 million to all customers by 2021.]*

We know that little children make up extraordinary stories for themselves so they can live out the adventures that they don't have in real life. It's the same process which makes the scientific and political elites create "smart" objects. Looking at the expanding list of these gadgets destined to become indispensable, or even compulsory – from meters on fridges to textiles – you have to say that some of them must be very needy individuals. Rather than inventing a smart newspaper, *Le Postillon* here offers you a story – not extraordinary but all-too real – telling the adventures of the Linky, the invention of the smart city and the role of Grenoble in the coming of the smart revolution.

Presumably you've heard of Linky? No? Yes you have, remember, it's that so-called "smart" electricity meter. Which means, according to Wikipedia, that they can ***"identify in a detailed and precise manner, eventually in real time, the electricity consumption of a household, a building or a business and communicate this by phone or power-line communication (PLC) to the data administrator".*** You're wondering what use that is? ERDF (Électricité Réseau Distribution France), the offshoot of EDF *[ed. – State-owned energy firm, largely nuclear]* charged with running the electricity distribution network in France, says: *"Linky will simplify your everyday life: services such as meter reading, changes to the power level or switching on a supply will from now on be carried out remotely and in under 24 hours. Linky makes it easy to control your energy use thanks to more detailed information on your consumption."* These new meters are in an "experimental stage" and have [as of 2011] been installed in around 100,000 households in the Tours area and 200,000 around Lyon. **But soon you too will be able to have one, for the outcome of the experiment was known even before it began.** They are therefore going to be rolled out across the whole of France. In the end, 35 million households will be lucky enough to have a Linky.

social life, if you considered yourself sufficiently "smart" to have no need of objects which identify themselves as such, you could make use of this proximity to *express your disagreement.* You could refuse to become a guinea pig for the "smart city" and make your refusal public. In any case, it would be more interesting than moaning about "this latest piece of rubbish" and sounding off about "directives from Brussels" *[ed. – seat of the European Union]*, wouldn't it? But then, of course, thanks to our little story, you will have truly grasped all the many benefits we can expect from Linky and the smart revolution.

[All non-sourced quotes come from the Linky, Atos Origin, Wikipedia or CleanTech République websites.]

thing we have in mind works properly. ***[…] Of course, the key to success is that people adhere to the approach.***

And it is much easier to do that in a new district like La Caserne de Bonne or La Presqu'île, because eventually we will see the arrival of a massive number of new residents who have not yet been tied down by a whole set of habits and commitments, which after a while make it too complicated to change […] Here, at the same time as offering people a new way of living and a new place of work, we can offer them, in a far easier way, a whole set of services for the use of energy and associated means of transport". See how smart the city of Grenoble is? Rather than bothering real residents, it prefers creating new districts with new residents who, seeing as they have just moved in, will be considerate enough to keep their mouths shut. Once the experiment is "conclusive", then they can happily roll it out to the rest of the city and present opponents with the old line that "it's already happening over there". Handy, eh? That's what participatory democracy is all about.

Don't you find it impressive, how everything is now "interconnected"? How, starting from one small object – the electricity meter – they can reach the point of talking about new districts and smart cities *[ed. – see* ***Return Fire vol.3 pg31****]*, about the world of the day after tomorrow. **That's always an important element in these projects, in the evolution of the world, in progress: giving the impression that all this is inevitable, that it is ordained from above, that we can do nothing about it. You will point out that Linky stems from a European directive which stipulates** ***"that 80% of electricity meters must be smart by 2020 to encourage competition and energy savings".*** That's true, but as we have seen in this article, lots of promoters of Linky and the smart revolution are active in your city, close to your home, in laboratories or shady offices. And so? **Imagine: if you were hostile to the machine-world, if you resisted the incursion of electronic sensors and chips into every area of**

Does Atos Origin mean anything to you? No? It's a big company, though: annual sales of 5 billion euros, 50,000 employees across the world[1] of which 15,000 are in France. What do they do? *"We provide consulting, systems integration and outsourcing services that help provide added value to our clients' IT systems. Our primary mission is to optimize the use of new technologies in our customers' IT systems and thus develop with them a new generation of services."* Hmm… And what does that mean? Basically, they devise and install IT systems for a variety of "customers" ranging from oil companies to nuclear power stations by way of the Olympic Games *[ed. – see* ***Return Fire vol.1 pg26****]*. And the connection with Linky? It was Atos Origin who *"landed the Linky project with ERDF"*. So they are in charge of creating and installing the meters. Actually, we forgot to tell you that the boss of Atos Origin is a certain Thierry Breton. That doesn't ring a bell? Come on, you remember, he's the former Minister of the Economy, Finance and Industry, between 2005 and 2007 – in other words at the time when it was decided to launch the Linky project. Things worked out rather well, didn't they? *"Thierry Breton is thought to have negotiated an annual salary of 2.2 million euros for his nomination to the position of President of Atos. Additionally he is said to have also insisted that he should be allocated 700,000 euros worth of low-priced stock options".* (www.linformaticien.com, 26/10/2008) *"The French IT company Atos Origin more than tripled its net profit in 2010 to 116 million euros and reported a 'return to growth', declaring itself 'confident for 2011'."* (Le Figaro, 16/02/2011).

[1] ed. – Notorious in the U.K. for their privatised examination of individuals' eligibility for disability welfare. Also, as 'Some Angry People' wrote after smashing up their offices in Nottingham for the above reason near the time this article was written, "Atos are becoming experts in the business of identifying groups to contain and exclude them. They were one of the groups who tendered for the government's ID cards contracts…"

So what's all this got to do with Grenoble, you're asking (because you know that, as a Grenoble newspaper, *Le Postillon* only talks about Grenoble)? To get Linky running, Atos Origin created a new subsidiary, with the lovely name of Atos WorldGrid (great, eh?). This new subsidiary is for now based in the charming and leafy Innovallée business zone at Meylan. But it's outgrowing its home and will soon be moving into the new Grenoble district of Bouchayer-Viallet, in a building currently under construction, where it will easily be able to accommodate its 700 'collaborators'. And if you are looking for work, they are currently recruiting 'C++ designer/developers' and 'CMMS project leaders'. Which means if you aren't highly qualified, there's no point applying.

If you like, we can get back to Linky.

For despite all the good intentions of ERDF and Atos Origin, the experiment isn't going as well as it could and, as ever in France, moaning Minnies are making themselves heard. The list of complaints raised by the first users on internet forums (such as Rebellyon.info) is so long that we couldn't fit it in here. So we will make do with summing up a few of them, on a thematic basis.

– **Money.** The cost of the meters, ranging from 150 to 300 euros per household, is apparently added to the electricity bill, in installments.

– **Technical.** The new meters are causing a lot of power cuts. *"At the slightest surge, it cuts out!"* Some meters have even burst into flames a few days or weeks after installation.

– **Common sense.** According to ERDF, the great plus point for the "customers" is to be able to reduce their bills by closely monitoring consumption, by reducing the use of heavy-consumption appliances or by using them during off-peak times. But the meters that have been installed don't let you see the details of what you have consumed. To do that, you have to get an extra "box" costing about 100 euros. Hardly anyone is going to do this.

acts as a sun-shade, filters the light and provides light levels that are much more pleasant for the people inside who are constantly working on computers and thus have to protect themselves from direct sunlight."

There you have just learnt that modern architecture protects fragile human eyes from the scourge of the sun and allows them to spend all their time in front of friendly screens rather than being assaulted by the horror of natural rays. But what should be done with the sun, then? *"There are 1,000 square metres of solar panels on the building",* Florence Audouy tells us. *"The power is sold to the grid but represents around 20% of consumption. It's the equivalent of the energy needed to light the building."*

And here you have just learned that this building actually uses lots of energy (but it will be smart) and the solar element is just there to make it look nice and friendly. What you don't know yet is that the building under construction for Atos Origin (see above) is called "Les Reflets du Vercors", that it is right next to "Les Reflets du Drac" and that they look like two peas in a pod. The smart attitude is all about uniformity!

You know how when politicians push ahead with their big schemes, they are always worried about potential opposition which might scupper their plans, even though they are acting for the good of the people? So it is with Stéphane Siebert, who combines the role of sustainable development assistant at Grenoble city council with that of deputy director of research at the Alternative Energies and Atomic Energy Commission (CEA), and who says, still via CleanTech République: *"What I find extremely interesting in this approach, which I would term collaborative, is that it allows the behavioural aspect to come into play. […] Nobody today knows how all these new forms of technology are going to be able to work when they are available to thousands of users at the same time. We absolutely need to have a full-scale demonstration, with real people, to allow us to check that every-*

You see, you mustn't be afraid of control and supervision because it's good for sustainable development.

In any case, you are about to be plugged into all that because CleanTech République tells us that the people of Grenoble are going to be guinea pigs. *"To respond to challenges like the rise in population or the changes in its energy networks, the city of Grenoble is currently preparing the roll-out of several big technological experiments within its borders. Whether this consists of smart grid demonstrators or eco-centres, these projects will involve elected officials, businesses, universities and of course residents".* If you haven't yet been contacted, don't worry, because you'll soon be "mobilised".

Are you wondering what tomorrow's city will look like? Go and pay a visit to Bouchayer-Viallet, to admire the "Les Reflets du Drac" building. It's true that, particularly close up, the aesthetics are those of a prison. But the solar panels mounted on top and the bright colours make it obvious that it's actually an office block. This building has got everything going for it: High Environmental Quality, Low Consumption Building and… "double skin".

Listen to how Florence Audouy, programme manager for Urbiparc (the subsidiary of Bouygues Immobilier which constructed the building *[ed. – the wider company, incidentally, also builds prisons]*) explains the concept, still on the CleanTech République site: *"The double skin was the great idea of Jacques Ferrier [the architect]. The building has been designed with an initial concrete skin which is very well insulated. But he got round a number of constraints to attain the performance levels we were targeting by proposing the option of a double skin on three sides of the building: on the west, south and east sides there is a metal frame with a mesh of perforated panels which fulfils four main functions. First function: improving the thermal comfort of the building (this double skin protects the envelope, prevents an overheating effect in summer and reduces the consumption for cooling the building). Its second role is to produce an umbrella effect; it*

– **Health.** The smart meters are yet another electromagnetic source, causing unknown *[sic]* effects on people's health.

– **Social.** Everything can be done remotely (switching on the supply, repairs…), which means fewer jobs and less human contact. The supply can also be cut or reduced remotely, while previously it required a visit from an engineer and thus a physical encounter with those whose power he *[sic]* was supposed to be cutting off. Now it's just a click away.

– **Freedom.** *"Information on energy consumption transmitted by the meters is very detailed and reveals much about the occupants of any home, such as their waking times, the time that they have a shower or when they use certain appliances (oven, kettle, toaster)".* This is the very sensible CNIL *(Commission Nationale informatiques et Libertés)* saying so. Even according to several engineers, personal data is not secure and thus easily used for policing or commercial purposes.

All of that doesn't set you dreaming? That must be because you just haven't understood anything about Progress, The Future Life and smart grids. About what? About smart grids, or "intelligent networks". What? *"Smart grids use computer technology to optimise production and distribution and to better co-ordinate supply and demand between providers and consumers of electricity."*

Smart meters, like Linky in France, are thus one of the elements of the smart grid. You've no doubt grasped that by "enabling better use of energy" smart grids are supposed to be environmental and part of "sustainable development". But they have nothing to do with that old-fashioned backward-looking environmentalism, which wanted us to think about our consumption, steer us towards energy conservation and encourage us to return to the age of the candle, the ballpoint pen and the landline. Oh no, smart grids allow you to be "green" while continuing to profit from all the joys of modern life, without challenging your lifestyle but by reinforcing it: *"In the light of the explosion in energy demand, the time seems to have come to*

trade in our old energy networks for communicating, intelligent and thus more efficient systems".

Even better, the smart grid boosts growth because the manufacture of smart meters needs lots of energy, as do the central control systems. To save energy, we have to use more. Smart grids – and more generally smart energy – thus guarantee a rosy future for our splendid nuclear industry, which has been having a rough ride of late. And, in any case, as *Innovallée Mag* (Summer 2010) reminds us, "smart" is the future of the world: *"One thing is sure, however, and that is that the smart revolution is underway! Tomorrow, the world around us will be riddled with sensor networks, charged with communicating between themselves by standard protocols and with sending their information in real time to a more or less automated central control system. Welcome to the smart world ruled by... distributed intelligence!"*

Guess which city is piloting smart grid stuff? Bingo, you've got it! *"As a real local technological speciality, the smart grid has found in Grenoble a space for innovation and experimentation,"* the "CleanTech République" website tells us. This site, whose slogan is "green innovation at work", simply loves the smart grid and more generally everything which allows dosh to be made under the banner of "sustainable development". So a team of its "journalists" came to Grenoble to make some "web-TV" with local actors on the theme of smart grids and smart cities. The result is about as thrilling as a Soviet propaganda film. **If you ever look at the local press, you will already have read 9,522 times that Grenoble is a "laboratory city", *"at the forefront of the latest technology", "where the world of tomorrow is being invented".* Well, that's not wrong. Around nanotechnology, the loss leader which sells Grenoble to the world of investors,[2] there are clustered**

[2] ed. – 'Minatec', as of then the biggest European research centre for micro- and nano-technologies (see **Rebels Behind Bars; Let's Relaunch the Struggle Against Nocivity**) – on top of military, surveillance, and historically there also nuclear developments – is for example located in the area. Around the time its opening was resisted, with an occupation of the Isere town hall leaving damaged offices, Minatec staff transport being blocked by flaming barricade or researchers being heckled and pelted with eggs during their conferences, while there and also at an IT firm computers were sabotaged. The inauguration itself, with the area in a quasi-militarised state, saw rioting in the city, trashing of banks, a firm producing R.F.I.D. (already in use in public transport tickets and highways in Grenoble) and nano-tech, a work agency and police station. Cars were burned and barricades raised against the police charge. The Grenoble-Chambery electric line was sabotaged in three different points, causing delays in electricity supplies. Some 'Opponents of Necrotechnology' reported that "three issues of a fake magazine pretending to be official propaganda promoting the new technologies have been posted through the letterboxes of the city's residents. The latest, for example, talks about the supposed plans for a huge dome made of nanotech materials which will enclose the alpine corridor between Grenoble and Geneva for 120km, and where people will need chips embedded in their body to enter. These magazines have caused a huge scandal because so many people believed what they read – and then found out that it wasn't so far from the truth anyway."

a large number of technological projects which are going to "revolutionise our lives", not in a messy and unpredictable way like the Arab Spring *[ed. – see Return Fire vol.2 pg87]* but rather in a calculated way, planned and organised by the political and scientific elites. *For the greater happiness of us all, of course,* even if we are not asked for our opinion beforehand. Among the advances are "Senscity", a project from the Minalogic business cluster in Grenoble involving our friends at Atos Origin, which wants to establish a "city-scale Machine-to-Machine eco-system". You what? *"The functioning of cities necessitates the establishment of certain important services: waste management, public lighting management, water management etc. The M2M [Machine-to-Machine] provides solutions of supervision and control which allow us to optimise these processes: it is thus a crucial element in the sustainable development of the city".*