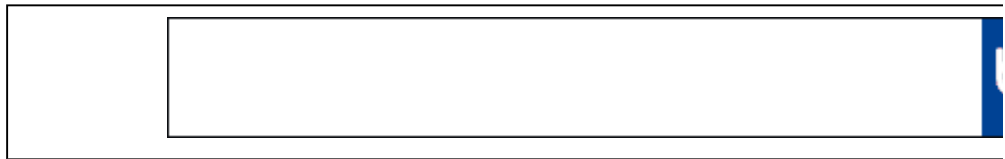


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Short-changing Iraq

By [Julia Pierce](#)

Precision bombs flattened much of Iraq's infrastructure during the campaign to evict Saddam Hussein's government - and now engineers have to rebuild it. Fears are growing, however, that the political tensions that characterised the run-up to the Iraqi invasion will blight its reconstruction, encumbering the country with a set of technologies unsuitable to its needs and hard to maintain once the aid dollars dry up.

The views of engineering specialists in the US and what that country's hawks have labelled 'Old Europe' - primarily France and Germany - are as at odds as those of their political leaders.

US engineers are unabashedly optimistic that Iraq stands on the brink of a technological nirvana, rebuilt from scratch to the highest possible standards. Dr Albert Gray, executive director of the US National Society of Professional Engineers - who was involved in the rebuilding of Kuwait following the first Gulf War - claimed that US-led reconstruction would leave Iraq with a world-class technology infrastructure.

As an example, Gray cited a proposed state-of-the-art water-purification system that would be 'better than that of the US in some ways'.

Gray believes that installing the system from scratch will allow the Iraqis to immediately integrate new systems only just being introduced as add-ons and upgrades in the US, such as membrane technologies for purifying salt water. 'Some are untested in operation, but the country will end up with a system incorporating the latest technology,' he claimed. 'Installing a complete new system is better than adding on upgrades like we are doing at home.'

Gray said the membrane systems would have a low lifetime cost owing to their efficiency and the improved durability of components. And this, the American claimed, would be reflected across every aspect of the new-look Iraq, with bridges and roads built to better standards, making them more durable for the long term.

But nobody in the US engineering and technology community is under any doubt that it is America - possibly with a little help from its partners in the 'Coalition of the Willing' - that will make this happen. A contract to evaluate and repair Iraq's power, water and sewage systems worth up to £453m has



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already been handed to US firm Bechtel (see sidebar).

The political omens for European technology providers' fears are increasingly grim. Moves have been taken to reward supporters and isolate dissenters, such as leaving France out of US plans for a temporary EU Iraqi stabilisation force. Senior US figures, including Secretary of State Colin Powell, said France in particular would 'face the consequences' of not supporting the war in Iraq. If this policy, as seems inevitable, extends to post-war rebuilding, some of the world's leading technology and engineering developers will find themselves out in the cold.

Members of Germany's BGA foreign trade association and the VDMA machinery and plant builder's association have complained that relationships with US partners have become strained by their countries' opposing views.

On commercial grounds alone, this is painful enough for those left outside the tent. But they also claim that it could have negative long-term implications for the Iraqis themselves. Claude Valluy, head of Middle East exports for French electronics specialist Sicamex, believes that attempts to rip apart Iraq's existing infrastructure would be beset with difficulties, with consequences that could affect every citizen of the country. 'In the low-voltage areas of the country's electrical system such as homes the wiring standard is French,' said Valluy. 'The whole of the country is wired in this way, as is much of the Third World, and it would be very hard for the US to change it. It works well and is relatively modern.'

According to Valluy, even American engineers agree that any wholesale changes imposed under US edict would be counterproductive and that the existing system should not be changed, whatever the politicians say. 'Of course if you have the money you can change anything. But the US would have to return to a network developed in the 1940s if they wanted an alternative. It is like trading in a new car for an old one.'

According to Valluy, Iraq contains many spares for the system and, more crucially, engineers familiar with its operation and maintenance. In practice, this leaves the supply of generators and sub-stations as the only area where US suppliers could legitimately be preferred. Valluy also warned that those pushing for changes to Iraq's technology infrastructure need to be aware of possible political upheavals further down the line. 'With sectors of the population now wishing to set up an Islamic government, it is clear that the whole situation will have altered. The existing administrations in Europe and the US will also have changed.'

Ultimately, and whatever their patriotic objections, Valluy believes Iraq's US masters will have no choice but to call on the services of French and German specialists. A stark, early example of the dilemmas that may lie ahead for the whole Iraqi technology infrastructure is the battle already raging over its telecoms network. Pressure for businesses to be allowed access to Iraq's market is huge. Development of the telecoms sector has been almost non-existent during the years of sanctions following the first Gulf War. There are no mobile or internet services and just two phones per hundred of the population. Building a telecoms market from scratch could be worth £4bn, and international companies are understandably keen to fight for a share.

Firms with previous experience in similar projects such as French firm Alcatel, which restored the phone networks of Kosovo, would be wise not to hold their breath in expectation over a role in Iraq. German technology giant Siemens is also concerned. It played a vital part in rebuilding the telecoms system of Afghanistan, which has many parallels with Iraq.

But if powerful forces in the US have their way, both of the above will be left on the sidelines. In March US congressman Darrell Issa attempted to introduce a bill demanding that technologies with a US patent - specifically code division multiple access (CDMA) technology - should receive preferential treatment over the far more ubiquitous GSM as a mobile telecoms standard in post-war Iraq. The bill was edged out, but commentators say it provides a telling portent of the true ambitions of many within the US government - that inferior, globally incompatible or untested technologies be installed in the




devastated country by a US-led reconstruction team in order to comply with a pro-US technology bias.

'The tensions that have emerged in the telecommunications sector will have an impact across the entire reconstruction process,' claimed Monica Basso, a principal analyst at Gartner. 'Everything from oil to engineering and building will be affected by these problems.'

Basso believes that while Issa's symbolic display of pro-US intent may have been thwarted, behind the scenes such arguments are actually gaining support among decision-makers. 'At the end of the day Issa's views can be countered using reasonable arguments, but the political tensions between the US and Europe have been ongoing and this is just one manifestation of them,' she said.

Basso pointed out that TETRA (terrestrial trunked radio), a network used by the UK's police, is mainly supplied by Nokia and could therefore also be affected by US political lobbying. TETRA, which could prove useful in post-war Iraq, can easily be integrated with GPS to provide improved location tracking in remote areas and in emergencies can be programmed to accept calls from the public, which would be routed to a call centre. And if the TETRA network was affected, the public system could be used by emergency workers.

'There are already standards in use that allow GPS to integrate with TETRA,' Basso explained. 'If CDMA were installed, it would be some time before this integration could occur and it would also require more money.'

Mobile telecoms may not be the only area where the best systems risk losing out to those with a more acceptable political pedigree. 'In the field of wireless local loop that makes the last mile more efficient, Alcatel is a very strong player,' Basso said. 'It is providing a number of solutions in Eastern Europe, and is also quite active in the Middle East. But as a French firm, if political considerations succeed, the Alcatel technology may not be accepted even if it is best for the job.'

Distribution of around £400m in contracts for emergency rebuilding of utilities, roads, bridges and public services is being handled by the US Agency for International Development (USAID). But European governments and businesses have become increasingly worried by US arguments claiming that as they paid for the bulk of the war US business should take the lion's share of profits from peace.

French Caldwell, a US-based analyst, said: 'It is a case of 'to the victor go the spoils'. The US will allow people who want to pay to rebuild Iraq to help, but they will prefer to use their own domestic companies with their money. There won't be a division of Iraq during rebuilding like there was with post-war Germany, where the US put up the money under the Marshall Plan. I think the question of how it is co-ordinated has been answered by the fact that a US general is already in place there.'

Sidebar: This is no rerun of the restructuring of Kuwait

The last time a Gulf state was the subject of a massive reconstruction project, it was Iraq itself that left the damage behind.

In 1990 Iraqi troops invaded neighbouring Kuwait, occupying it for almost seven months before being driven out in February 1991 by an international coalition of US-led troops in Operation Desert Storm. The government in exile was keen to restore the country and its modern infrastructure to its former condition.

Names familiar to those following the bidding process for Iraq's rebuilding reaped the benefits. As early as the first round, around 70 per cent of contracts went to US firms.

San Francisco-based Bechtel - recently recipient of the first USAID Iraq contract worth up to £453m - ended up with the main rebuilding contract, worth an estimated £1.67bn. The company planned the reconstruction of Kuwait's oil and gas production system. Large orders for utility vehicles, trucks and cars were assigned to companies such as General Motors, Ford and

Chrysler, while industrial equipment giant Caterpillar was another major beneficiary.

But some have warned that Kuwait - which is now generally regarded as possessing a technologically advanced infrastructure - may not foreshadow what will happen in Iraq. Kuwait was never as badly damaged during the first Gulf war as Iraq itself was by years of sanctions then heavy bombing. And crucially, its mega-rich rulers were able to return from exile to reimpose order. Overseas technology providers may find working in the chaos of post-war Iraq a far different proposition.

Sidebar: American by name, French by parentage

US Filter, North America's largest water company, would seem to be ideally placed to take part in the reconstruction of Iraq.

The Pennsylvanian company is at the leading edge of water technology, and has experience of providing treatment systems designed for countries ravaged by war or natural disasters. It has established operations in the Middle East and even has a patriotic 'US' in its name. US Filter is hoping to become a technology provider to Bechtel, which is leading the reconstruction of Iraq's basic infrastructure and has pledged to give the stricken nation the best services available.

US Filter has, however, one potential handicap not facing rival technology providers: it is a subsidiary of Vivendi, the very French global conglomerate, and as such possibly facing the fall-out from the bad feeling caused by the run-up to the war.

A modern water system has repeatedly been highlighted as an essential component of a stable future for Iraq. US Filter claims particular expertise in areas such as membrane filtration, arsenic removal and the destruction of water-borne bacteria. In the weeks ahead the company will be lobbying Bechtel to play its part in the rebuilding of Iraq's battered water infrastructure. For its part, Bechtel has promised an open and fair contest.

But given its strong credentials otherwise, US Filter's role - or lack of one - is bound to be seen as an indicator of how far a Gallic connection can damage your chances in the post-Saddam Iraq.

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