

# Addressing the economic downturn through **LAB INSTRUMENT RENTAL**

The majority of life sciences labs are facing an unprecedented decline in capex budgets and their subsequent ability to purchase new laboratory instruments. The default option underpinning lab instrument and equipment sales to life sciences has historically been the outright purchase model. The economic slump has fostered a growing market for low cost, used, surplus or refurbished instruments. The lab instrument rental or lease alternative has up till now not been widely available or considered. The results of a recent market survey showed a significant degree of latent interest to explore alternative purchasing scenarios with interest greatest for the rental of high-end (the most expensive) instruments, which they see little chance of being able to afford to buy outright. Vendors should be encouraged to investigate all possible substitutes to the traditional outright purchase model as potential customers have never been more open and receptive to consider alternatives than they are today. Lab instrument rental or lease options merit inclusion in the mix of potential purchasing options.

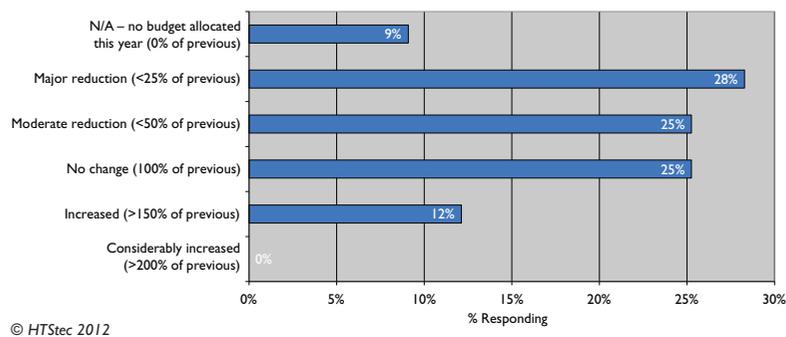
**R**ental of machinery, instruments, equipment and tools is the norm in many industries and areas of research and business today. Yet for life science research undertaken within pharma, biotech and academia, lab instrument rental is almost unheard of and owning lab equipment is still seen as important to most end-users. Furthermore, many instrument vendors and their sales people through commission and quarterly sales targets are highly driven towards selling new instruments and associated support/service contracts, and for main-

taining a market based on sales. Perhaps the most notable exception is in the diagnostic testing field where very few instruments are actually ever sold – most are rented, leased or provided free-of-charge with a consumables purchase agreement. In this case the diagnostic instrument vendor typically amortises the instrument depreciation over the reagent contract. Although the diversity of applications and frequency of project changes in life sciences research in general may preclude the widespread adoption of the diagnostic approach.

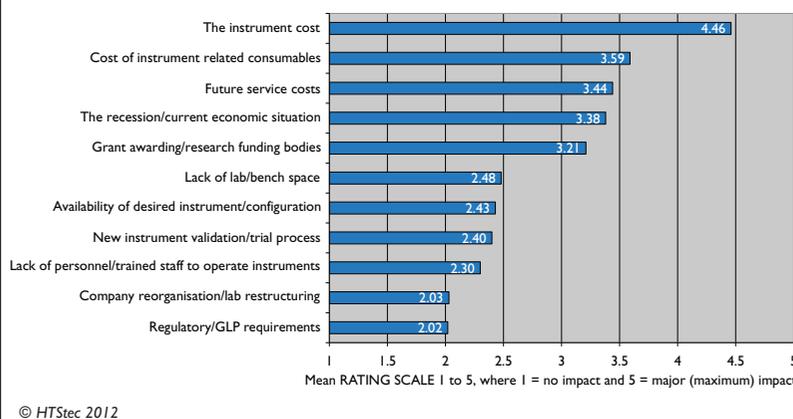
**By Dr John Comley**

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**Figure 1: Has money available to purchase new capital lab equipment (capex budget) changed relative to past three years?**



**Figure 2: What impacts respondent's ability to purchase new lab instruments today**

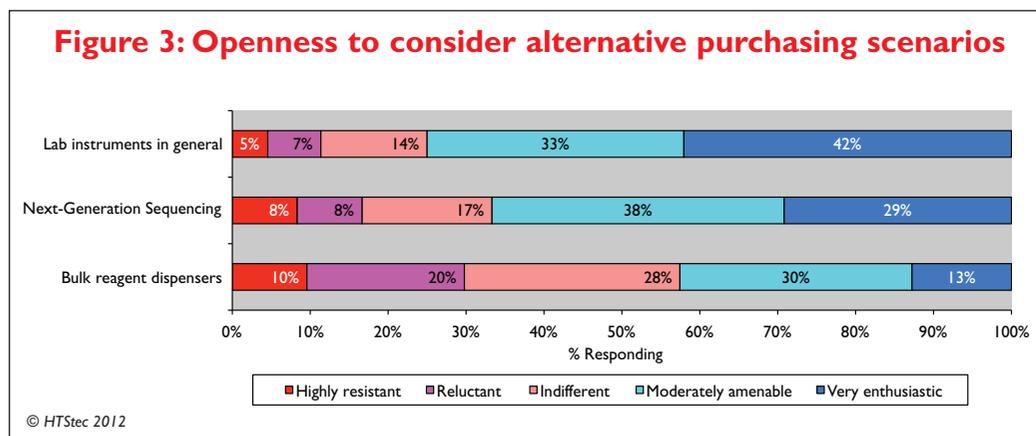


## Rental versus lease

So what is the difference between renting and leasing an instrument? In a rental agreement the rental company owns the instrument and amortises (ie writes off) the depreciation of the capital asset. On completion of the agreed rental period the instrument is returned to the rental company. It follows that the rented instrument supplied will not always be brand new, but it is usual for them to be very well maintained with the latest software etc and for rapid (eg next day) service to be included in the rental price. In a leasing arrangement it is the leasing company or a bank that initially owns the capital asset by purchasing the instrument outright from the vendor on Day 1. The leasing company (eg GE Capital is active in instrument leasing) takes the depreciation and absorbs this cost, plus adds in the interest on the loan, when calculating the leasing terms and repayments. Typically a lease costs more than a rental agreement, but on receipt of the final or additional payment of a nominal sum the leaser takes full ownership of the capital asset. A service or maintenance contract on a leased instrument is usually an extra cost.

Opinion on the outright purchase model of instrument acquisition in life sciences may, however, be changing as the current economic downturn bites hard resulting in severe cuts to capex budgets and instrument purchasing across all sectors. Fewer government grants are now available to academic investigators and fewer dollars allocated to support new instrument purchases are awarded. The recent sequestration of US government funding for the NIH, NSF and FDA will significantly impact spending until Congress agrees a budget and layoffs in instrument supplier companies have already been reported. Even pharma and biotech are not without budget caps and freezes, some exacerbated by patent expiration. Many of these labs are restricted in their ability to replace old equipment with new or to buy high-end instrumentation. In addition, the ability to justify equipment purchases is curtailed for what may be relatively short-lived projects or for applications requiring highly specialised kit but where the predicted use is relatively limited.

The industry response to less capex spending has mainly been concentrated around the growing market for lower cost used, surplus or refurbished lab equipment and life sciences instruments. This equipment has become increasingly available following the recent closure, reorganisation and consolidation of many research facilities, with companies such as Atlantic Lab Equipment, Biodirect, BioSurplus, Harlow Scientific, International Equipment Trading, GoIndustry DoveBid and LabX all well established in reselling or auctioning used instruments and trading online. However, acquiring second-hand equipment is not for everyone and is actively discouraged in some universities because of concerns about quality. The NIH responded to the instrument crisis in 2012 by a Shared Instrumentation programme to support the purchase or upgrading of expensive instruments. The programme, run by NIH's Office of Research Infrastructure Programs, was created to make it possible for institutions to buy expensive research tools that are necessary for NIH-funded biomedical science projects but which can only be justified on a shared-use basis, although it is not clear how this might be affected by sequestration. The lab instrument rental alternative has yet to take off to any great extent, which is surprising as one of the greatest benefits of renting is saving capital budget expenditure and freeing up cash flow for the necessary purchase of consumables. Perhaps this has more to do with the fact that few manufacturers are willing to offer instrument rental or lease as a substitute to outright purchase, than a



reluctance of end-users to consider this option if it were offered.

In this article we review the feedback on lab instrument rental by a range of life scientists who make capex purchasing decisions. Full details are given in HTStec’s Lab Instruments Rental Trends 2012 report carried out in September 2012<sup>1</sup>.

**Current budgetary status**

The majority (77%) of survey respondents were currently experiencing budgetary constraints on purchasing new lab instruments. Money available today to purchase lab instruments (capex budget) was a median of moderate reduction (<50% of previous) relative to an average of the last three years (Figure 1).

**What most impacts new instrument purchases?**

Instrument cost was rated as what most impacts survey respondents’ ability to purchase new lab instruments today. This was followed by cost of instrument-related consumables; future service costs; the recession/current economic situation; and then grant awarding/research funding bodies. Rated least impact was company reorganisation/lab restructuring and regulatory/GLP requirements (Figure 2).

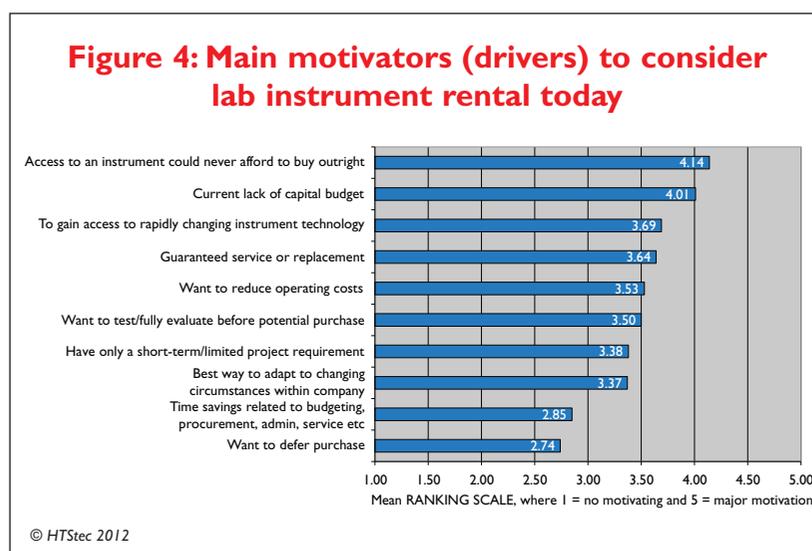
**Openness to consider alternative purchasing scenarios**

Data on the openness of survey respondents to consider alternative purchasing scenarios (like rental or lease) is presented in Figure 3. Here we have compared the responses of participants commenting on lab instruments in general (this survey) with two other recent instrument type-focused HTStec Trends surveys (Bulk Reagent Dispensers Trends 2012 and Next-Generation Sequencing

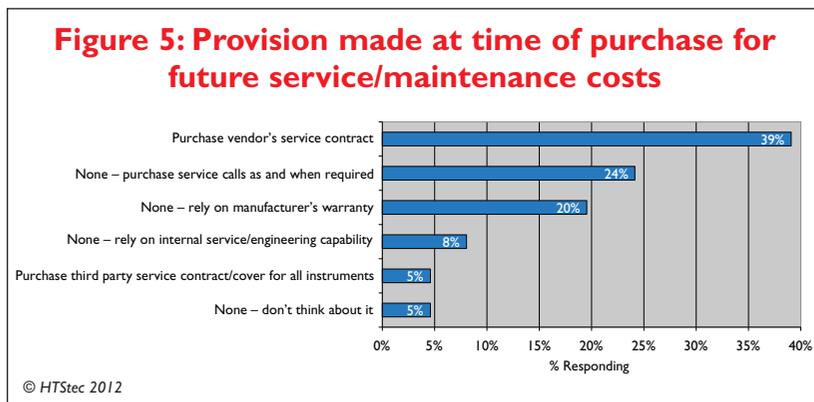
Trends 2012) which asked the identical question. This shows that the level of interest (ie those very enthusiastic or moderately amenable) was highest for lab instruments in general and next-generation sequencing (NGS). This finding is consistent with the observation that interest in instrument rental was greatest for high-end (the most expensive) instruments, and most bulk reagent dispensers do not fall into this category. It also suggests that there is greater likelihood to want to consider renting when the instrument technology is rapidly evolving and new instruments with enhanced or new capabilities are being released with a high frequency (eg NGS).

**Main motivators to consider lab instrument rental**

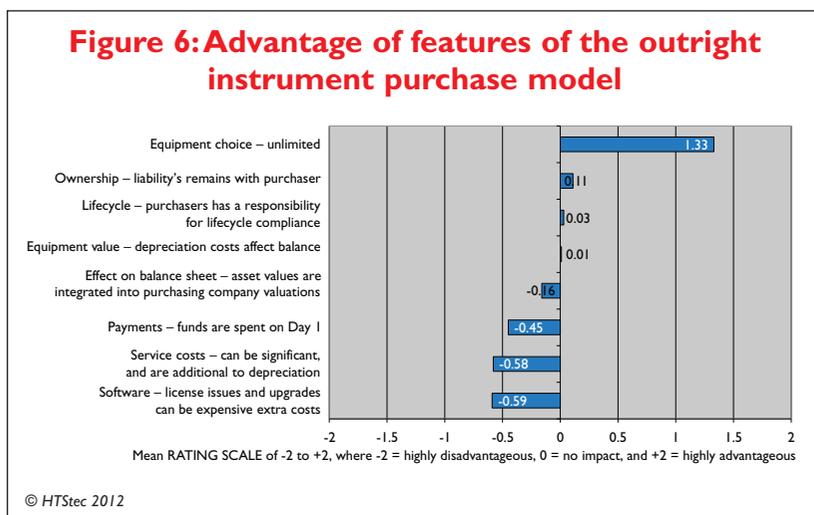
Survey respondents ranked access to an instrument they could never afford to buy outright as their major motivation to consider lab instrument rental



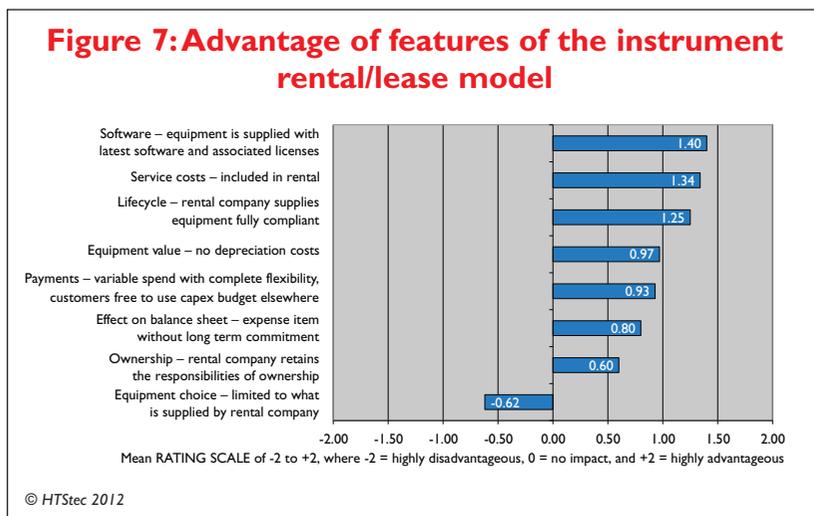
**Figure 5: Provision made at time of purchase for future service/maintenance costs**



**Figure 6: Advantage of features of the outright instrument purchase model**



**Figure 7: Advantage of features of the instrument rental/lease model**



today. This was closely followed by current lack of capital budget; and then to gain access to rapidly changing instrument technology; and guaranteed service or replacement. Least motivating was the

want to defer purchase (Figure 4). When considering guaranteed service or replacement it is important to understand how respondents currently deal with these issues. Most (39%) survey respondents make provision for future service and maintenance costs at the time of instrument purchase by the purchase of a vendor's service contract. This was followed by those that make no provision – purchase service calls as and when required or rely on manufacturer's warranty (Figure 5).

**Main advantages of outright purchase versus instrument rental**

Survey respondents rated 'equipment choice – unlimited' as the most advantageous feature of outright instrument purchase model. The least advantageous features of outright instrument purchase model were 'software – licence issues and upgrades can be expensive extra costs' and 'service costs – can be significant, and are additional to depreciation' (Figure 6).

Survey respondents rated 'software – equipment is supplied with latest software and associated licences' as the most advantageous features of the instrument rental/lease model. The least advantageous features of instrument rental/lease model were 'equipment choice – limited to what is supplied by the rental company' (Figure 7).

In a separate question 'no hidden costs, parts and engineer labour and travel fully included in rental cost' was rated the most important technical support issue in a lab instrument rental situation. This finding should be considered together with the fact that many purchased instruments today are not covered by a service contract and routine preventative maintenance or regular instrument recalibration tends to get overlooked. Herein lays another potential advantage for lab rental as it is in the rental company's interest to fully service its instruments, such that those offered could actually be maintained to a higher standard, with greater uptime and deliver superior productivity to those which are not rented.

**Previous experience and future interest in lab instrument rental**

Only a minority (23%) of survey respondents reported any previous experience of renting or leasing laboratory instruments. A similar proportion indicated limited awareness of any companies that routinely offer monthly rental/lease agreements on lab instruments. The most cited rental company used was the UK-based Flexible Lab Solutions, which according to respondent feedback appears to have been successful in renting

automated liquid handlers and plate readers in Europe. The majority of the other rentals or leases disclosed appeared to be mainly one-off arrangements negotiated directly with instrument vendors, leasing companies or banks. High interest among respondents for renting acoustic dispensing, mass spec or NGS platforms suggests these are areas where vendors should be more receptive to offering rental or lease options. Specific enquiries about NGS platforms made while writing this review established the following. In the current economic environment along with the threat of sequestration of NIH funds, Life Technologies believes that having financing options will be critical to driving adoption of NGS instruments in 2013 and beyond and this is reflected in the increasing volume of leasing deals that were completed in recent years (Figure 8). Life Technologies works with a professional leasing partner to offer options that vary by geographic region. In Roche it is the responsibility of local sales organisations and most of them do provide leasing or rental options and many customers are interested in these options. Illumina supports instrument lease programmes in selected markets through a professional leasing partner.

Of a range of current and alternative purchasing strategies for lab instruments, greatest interest was shown in paying a monthly rental fee that includes full instrument support, maintenance and/or replacement either on a monthly basis or with a fixed term contract (eg one year). Occasionally purchasing new equipment can be restricted owing to internal procedures requiring a demonstrated evaluation (ie validation of the benefits) of a new instrument prior to a committal to purchase. In such circumstances lab instrument rental provides the ideal solution to access an instrument or gain familiarity with a technology, where the typical vendor demonstration period prior to sale is of insufficient duration or not offered at the customer's site. Rental is a particularly attractive option where the company renting is uncertain of their long term success or commitment to research area or has only a limited or short term requirement for the instrument rented. Contract research organisations are also receptive to the merits of lab instrument rental since it allows them to react quickly to changing industry trends, to resource new projects requirements and provide customers the widest breadth of assays or services, without major impact on their capex spending.

19% of survey respondents indicated they definitely would give instrument rental or lease a try over the next few years rather than buy it outright,

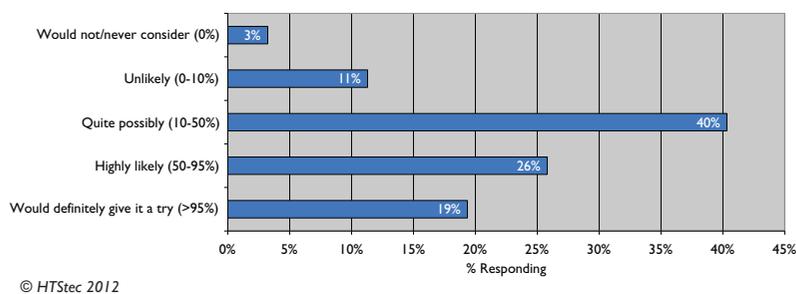


**Figure 8:** Life Technologies believe that having financing options will be critical to driving adoption of its Ion Torrent NGS instruments

if it were available at a reasonable monthly fee. A further 26% reported they were highly likely (50-95%) to rent or lease over the next few years (Figure 9).

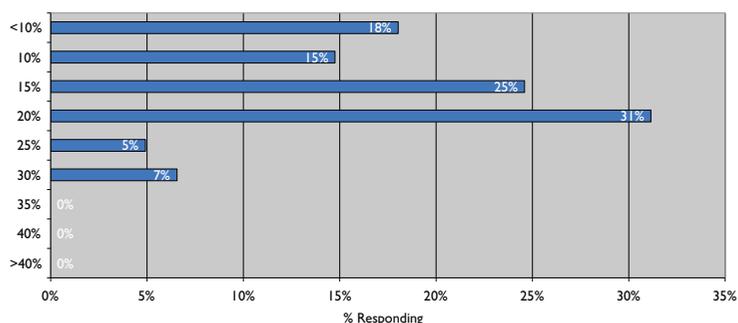
Regarding the possible cost of lab instrument rental, 25% was the median maximum percentage

**Figure 9: Likelihood will rent/lease a lab instrument over next three years**

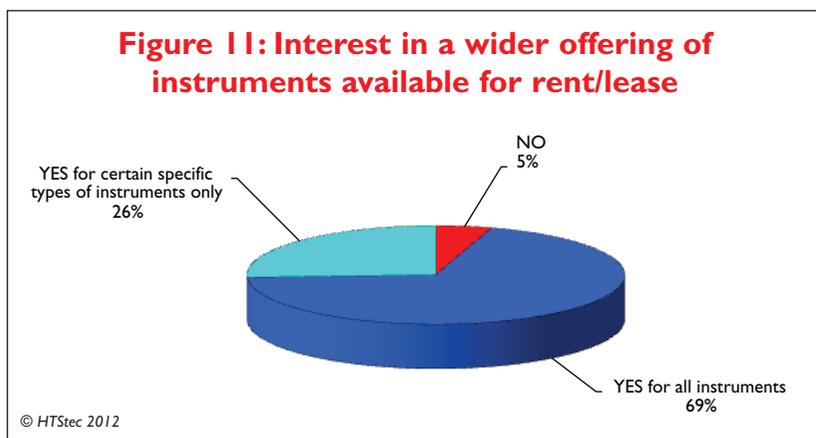


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**Figure 10: Percentage of total outright purchase price respondents would expect to pay annually to rent a lab instrument**



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**References**

I Lab Instruments Rental Trends 2012 Report, published by HTStec Limited, Cambridge, UK, October 2012.

of the total outright purchase price survey respondents would consider paying annually to lease/rent a new laboratory instrument (Figure 10).

The majority (69%) of survey respondents would like to see lab instruments vendors/suppliers move towards a wider offering of rental/lease agreements for all instruments. A further 26% would like to see vendors offer certain specific types of instruments (mainly the high-end expensive instruments) available for rental. Only 5% of respondents did not want to see or consider lab rental of instruments (Figure 11).

**Discussion**

So why haven't instrument vendors made a concerted effort to promote and offer rental options in life sciences before? Quite simply they didn't need to rent instruments previously, adequate budgetary resources were available for most purchases and there was no unified demand from the life sciences community. Vendors clearly can make more money by selling instruments; innately they dislike the burden of having to service/maintain machines, of losing value as their assets depreciate and accumulating a pool of ageing equipment. It comes down to supply and demand, if an end user needs it enough and they cannot access it any other way, outright purchase becomes the *de facto* norm. But an economic slump comparable to that which currently exists has not been encountered before in the contemporary laboratory era and

if instrument unit sales/placements are ever to approach pre downturn levels, everyone needs to adapt, learn new ways to do more with less and apply new thinking to lab instrument usage. However, vendors do not deserve all the blame as there has been resistance from corporate procurement departments in the past to 'approve' such transactions, or to facilitate monthly rental payments from a consumables or some general discretionary budget, and the respective internal processes at vendor's accounting (ie shifting from their preferred billing as a single lump sum to, say, multiple instalments spread over a long period) for the most part did not exist. Equally so, potential purchasers should not be put off from enquiring about rental options just because they are not openly promoted or initially advertised. For example, Labcyte has indicated it is open to offering rental or lease of its Echo® acoustic liquid handling systems (Figure 12) and some customers have taken advantage of this approach. Based on HTStec surveys and Labcyte contacts, even though there are dramatic annual cost savings on tips, samples and reagents creating a rapid payback for Echo systems, some customers still need the flexibility that alternative purchasing approaches provide. In conclusion, lab instrument vendors should be encouraged to investigate all possible substitutes to the traditional outright purchase model as potential customers have never been more receptive to consider alternatives than they are today. Lab instrument rental or lease merits inclusion in the mix of potential purchasing options and vendors could do more to increase awareness that they are open to discuss alternative purchasing scenarios.

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**Figure 12:** Labcyte is open to rental or lease of its Echo® range of acoustic liquid handling systems

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