

MUST

Abstract

In Europe this year 100,000 women will die of Breast Cancer. It is the largest single cause of death in women across the entire 35 – 65 ages group

The exact progress of the growth of a tumour is difficult to map; tumours don't really follow growth guidelines. What we do know is that once a tumour in the breast has grown to 2cm diameter there is already a 40-50% chance that secondary cancers exist. To set this in context, breast cancer accounts for 31 deaths in 100,000 women every year. This also equates to 31 deaths out of 75 sufferers or a little over 40% of diagnosed breast cancer resulting in mortality. Dividing those figures into pre and post secondary cancer the figures are stark. Breast cancers that are detected prior to any secondary presence result in 20% mortality whereas in cases where secondary cancers are present the result is 65% mortality.

Of the 100,000 women who will die of breast cancer this year about 70,000 will die from cancer that was not detected until secondary tumours (metastases) were present. Had they been diagnosed earlier, pre-metastases, nearly 50,000 of them would have lived. Diagnosis is key.

The purpose of the MUST project is to create a three dimensional scanning system which:

- Is a patient friendly scanning system available at the point of care
- Does not require a significant fixed installation,
- That is fully affordable by the most modest of facilities with a target price of €10k
- Is highly portable
- Has great ease of use.
- Gives immediate results for further decision making

The MUST three dimensional ultrasound scanning solution will not replace the CAT and MRI scanner, but it will replace certain of their functions in relation to surface or near surface tumour recognition, thereby greatly reducing the time to diagnosis and the cost of diagnosis and increasing the availability of high quality scanning.

The MUST development has the potential to put future generation imaging technology into the hands of the people that need it anywhere in Europe, by removing the need for infrastructure reliance, providing ease of operability and doing it at a price level that will be widely accessible and acceptable.

R&D Partners:

The MUST system, as a new product in the visual diagnostics market will stimulate great interest in the medical market. Quite simply, there will be nothing else offering real time 3D visual scanning at the bedside; let alone at the price level anticipated.

Anticipated market volumes will not be met by the production facilities currently harnessed by the consortium and it is anticipated that licensing agreements will be entered into in order to fulfil both the European and international demand. The export market (outside Europe) will be supplied through local distributors who will add value by performing final assembly, commissioning and field support. International licensing will be considered if the European infrastructure is unable to support the export market through the supply of components. It is anticipated that companies from Eastern Europe should yield particular benefit from the eventual sub-contract manufacturing of components.

Parts provided by IBMT to the project but not part of the project output. Parts and IPs related to it will stay IBMT property.

Parts developed and provided by TEG. Parts and IPs related to it will be output of the project and released to the industrial partners.

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