



Sustainable Competence  
in Advancing Healthcare



**COCIR SELF-REGULATORY INITIATIVE  
FOR MEDICAL IMAGING EQUIPMENT**

**REFURBISHMENT OF  
MEDICAL DEVICES  
CONTRIBUTION TO  
CIRCULAR ECONOMY**



# CONTRIBUTION TO CIRCULAR ECONOMY

- COCIR launched in 2014 an initiative to develop communication material on Refurbishment of medical devices under the perspective of its contribution to circular economy.
- The project was transferred to DITTA considering the global relevance of refurbishment.
- The publication was very well received and it will be translated into Chinese, Spanish, Brazilian Portuguese and French.





# CONTRIBUTION TO CIRCULAR ECONOMY

1<sup>st</sup> pillar

## ENVIRONMENT

*Reuse is a fundamental principle of ecological thinking in a recycling economy. By preventing equipment from becoming waste by extending the service life, materials and energies required to manufacture new products are saved.*



### 1. Refurbishment saves energy

By avoiding the production of new equipment, refurbishment contributes to save energy. DITTA estimates that around 30 MWh can be saved for each ton of refurbished medical devices.



### 2. Refurbishment saves CO<sub>2</sub>

By saving energy used in the production of new equipment, reducing the mining of raw materials and decreasing associated industrial production processes.



### 3. Refurbishment prevents waste generation

DITTA estimates that in 2012 around 16.400 tons of used medical devices have been prevented from becoming waste, instead being shipped world-wide for refurbishment and repair. Europe and United States account for most of the refurbishment activities worldwide.



### 4. Refurbishment save resources and raw materials

Medical devices make use of many scarce raw materials thanks to their unique properties - this includes beryllium or rare earth metals. Refurbishment saves these resources and helps to ensure their supply.



# CONTRIBUTION TO CIRCULAR ECONOMY

2<sup>nd</sup> pillar

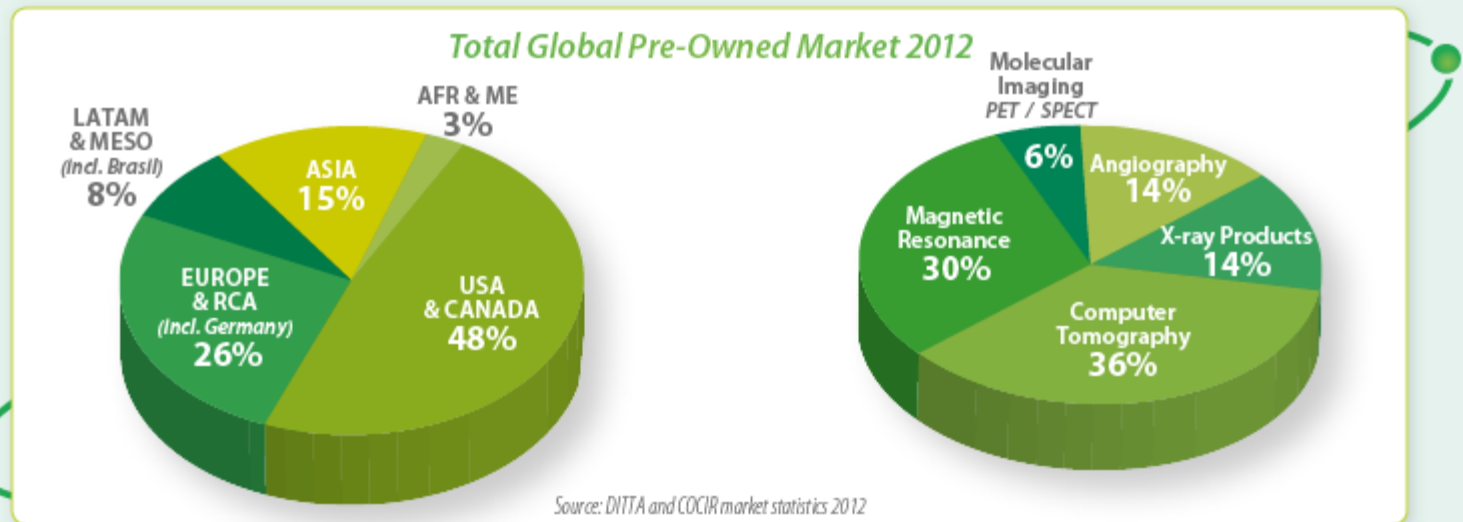


## ECONOMY

### *Refurbishment contributes to economy*

The refurbishment of medical equipment accounted for a global revenue of approximately 480 million euros in 2012. Approximately 74% of all refurbished systems are sold in both the U.S. (48%) and the EU (26%).

In 2013 refurbished medical equipment worth around 130 million euros was sold in the EU



# CONTRIBUTION TO CIRCULAR ECONOMY

3<sup>rd</sup> pillar



SOCIETY / PATIENTS

## *Refurbishment increases healthcare access*



Refurbished medical devices are cheaper than new equipment. In current times of constrained budgets and countries spending reviews due to the economic crisis, refurbished devices are an effective way to maintain access to high quality healthcare for citizens.

### ***Refurbished MD's contribute strongly to increased access to healthcare:***

- 20%-30% reduced cost for healthcare providers, while ensuring safety and high clinical performance.
- Improvement of the age profile of installed equipment allowing hospitals with limited budget to substitute their old equipment.
- Increase in quality of healthcare and safety for patients due to the reduction of the obsolescence of installed equipment.



# CONTRIBUTION TO CIRCULAR ECONOMY

## Refurbishment ensures **safety**



Used medical devices are restored to a point of safety and effectiveness comparable to when the device was new. Refurbishment includes actions such as repair, rework, update and replacement of worn parts with original/new parts.

All actions are performed in a manner consistent with product specifications and service procedures as defined by the legal manufacturer.

The Good Refurbishment Process consists of 5 steps. All the steps are performed by trained experts using the original manufacturer's specifications.

1. Selection of equipment for refurbishment
2. Disassembly, packaging and shipment
3. Refurbishment
4. Reinstallation of refurbished equipment
5. Professional services



# THE EU CIRCULAR ECONOMY PACKAGE

“The College of Commissioners today (25 February) adopted the executive’s 2015 work programme at their meeting in Brussels, signalling the end of the Circular Economy package of waste, incineration and recycling laws. The package will be withdrawn and resubmitted later this year....”

Presenting the 2015 Commission Work Programme to the European Parliament Timmermans said:

“We are also proposing to withdraw the existing proposal on the circular economy, to make way for a broader and more ambitious approach that can be more effective. We want to look beyond the narrow focus on waste and to 'close the loop' of the circular economy, for example by addressing recycling in product design and creating a market for secondary raw material”



# THE EU CIRCULAR ECONOMY PACKAGE

- COCIR realized in the past years that there is a mismatch between the current legislative paradigm and the concept of circular economy.
- WEEE, RoHS and the Waste framework in general were drafted when the buzz word was "RECYCLING ECONOMY"
- A recycling economy is completely different from a circular one, but this gap still have to be considered by the EU.
- The Circular Economy Package had very little of "circular". By addressing waste but not promoting reuse it was still in the old paradigm.