

European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry

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# Industry experience and perspectives on Circular Economy and Sustainability

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## Moving from Linear to Circular Economy "no need to explain why"





Earth overshoot day



CO2 Emissions



Climate Change









### **Circular Economy :** Our industry and the design of complex products



#### the MRI example

A typical MRI unit weighs up to 10 tons

- **3,600** assemblies
- 27,000 sub-assemblies
- 120,000 component parts

#### Long supply chain with 5 to 7 levels

 Up to **11,000** suppliers per company across the world and 10<sup>+</sup> languages

#### High cost devices, low unit sales numbers

 Limited purchasing leverage even on 1st level suppliers

#### **Our mantra**



in all stages of the products' life cycle







## **Circular Economy :** The end of product life

"the simplest phase"





#### Waste management

- Inverse logistic/take back
- Recycle valuable materials
- Recover energy

The end of life [waste] management in our industry is already well regulated and functions correctly; the opportunities for additional improvements are limited.

Hence most of our efforts are nowadays in the other product life cycle phases (design, manufacturing, transportation, use etc.) :





#### **Circular Economy : Technological advances and the value of upgrades** *"Use longer, use better"*





- Every year, advances in engineering for medical imaging provide incremental gains, and an occasional major breakthrough [AI being the latest].
- Advances in technology have allowed required radiation doses to be lowered, reducing the risk to patients and health care professionals.
- Since advances in technology are often incremental, the industry offers upgrades that can help **extend the life of equipment** over a defined period of time





### **Circular Economy : When Replacement is Necessary** *"Refurbish and re-use"*





- The age of the installed base of medical imaging equipment continues to increase! It is now older than ever before.
  - Consequence : higher risk of failures or breakdowns and associated delays for provision of essential medical interventions
  - Consequence : operating costs tends to be higher for the provision of medical services using older equipment [zero boil off MRI].
- Aged installed base is actively traded-in and where possible **refurbished and reintroduced** in the marketplace.
- The benefits to patients and clinicians of renewing the Medical Imaging Technology base are clear *a*nd irrefutable.



#### The sustainability challenge (financially, manpower 60 etc.) Drive integrated care !

## FROM

- Focus on acute conditions
- Hospital centred
- Physician dependent
- Episodic, reactive care
- Inefficient, fragmented care
- Passive patient
- Low tech silos
- Petrified pathways

### ТО

- Focus on acute & long term chronic care
- Community centred & public trust
- Team based & professional networks
- Integrated preventive care
- Global & multidisciplinary care
- Knowledgeable patient
- Localised integrated high tech & metrics
- Change management, evidence & research



## Diagnose centrally to treat locally



#### The sustainability challenge (financially, manpower 60 etc.)

### **Industry contribution :**

Improved installed base life cycle management





### The sustainability challenge (financially, manpower 60 etc.) Industry contribution :

#### Disruptive financing models



- As early as 2015, the EU Commission Expert Panel on Effective Ways of Investing in Health endorsed the new business models approach in its report on 'Disruptive Innovation: Considerations for health and health care in Europe'.
- This highlighted the value of innovative financial models, termed *"disruptive innovations"*, such as Managed Services, in implementing and disseminating innovation. Managed Services are long-term partnerships between healthcare facilities and technology providers.
  - They guarantee sustainable access and availability to the latest advanced healthcare technology and equipment.
  - They also bring additional value, offering analytical insights and procedural valuations
  - Which in turn can increase operational efficiencies and improve outcomes.
- COCIR calls upon Member States and regions to encourage hospitals and healthcare providers adopt and diffuse long-term business and financial innovative models, such as Public Private Partnerships and Managed Services.





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