




Sustainable Competence  
in Advancing Healthcare



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

# SRI V3 METHODOLOGY




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

Version 3.0  
March 2013  
(Version 1: October 2009)  
(Version 2: June 2011)

**COCIR**  
SUSTAINABLE COMPETENCE IN ADVANCING **HEALTHCARE**

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





# THE SRI METHODOLOGY

- The SRI methodology is the general methodology of the COCIR SELF-REGULATORY Initiative for Medical Imaging Devices.
- The methodology is a living document integrating every year the findings and developments regarding the application to new modalities and comments received by the European Commission and Stakeholders.
- The first version of the SRI Methodology was developed and presented in 2009. In 2012 the SRIv2 was officially submitted to the EC for public consultation.



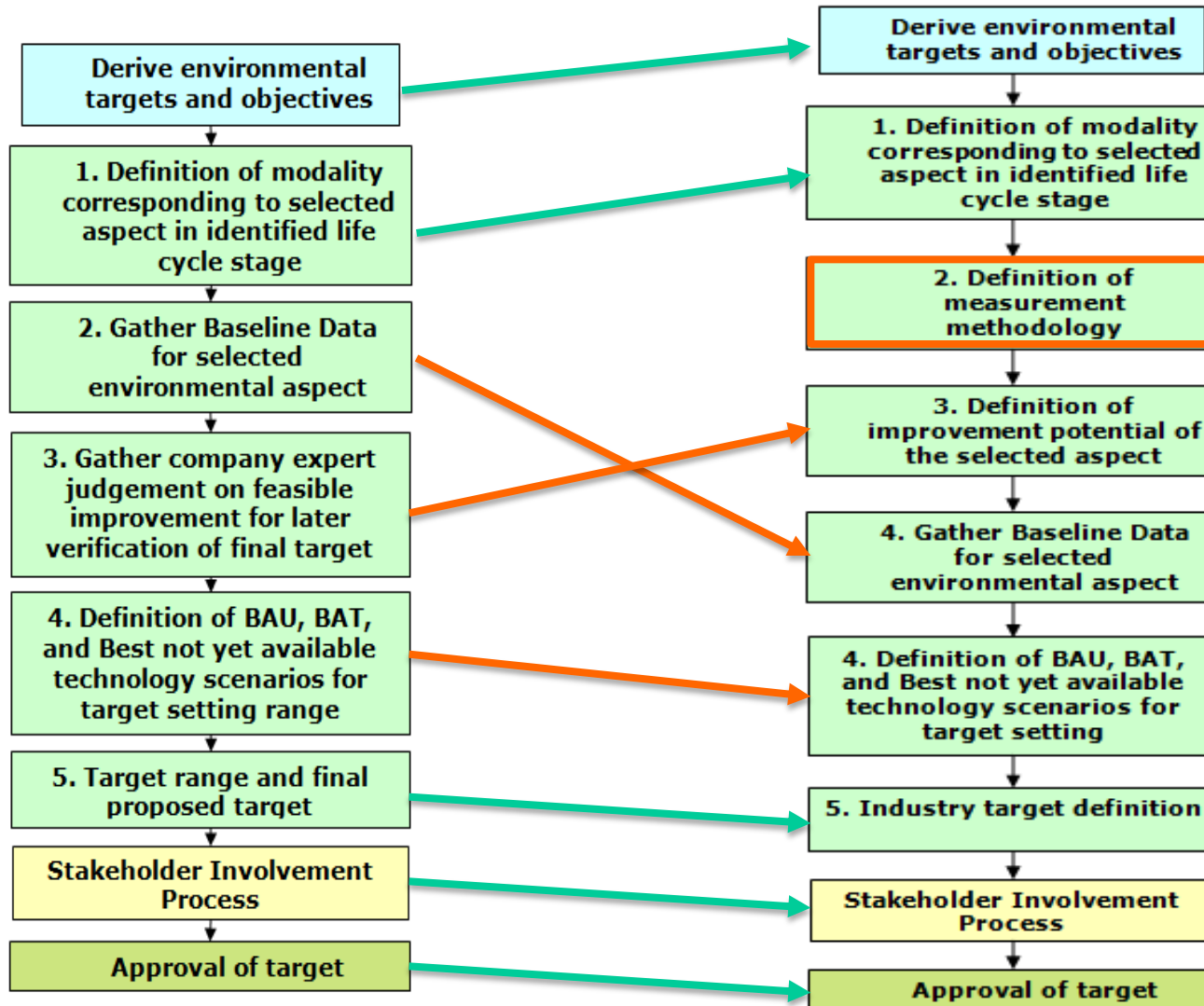
# THE NEW SRI V3

This year the SRI Steering Committee is pleased to present the SRI V3. It has been developed to:

1. Integrate received comments and gained experience.
2. Make the documentation more reader friendly, allowing the reader to easily find relevant parts and sections by separating the SRI commitments and principles from the methodological aspects of the document.
3. Introduce the new methods and procedures for the definition of the ecodesign target scenarios developed in the MRI project. Such new developments bring added values to the methodology which is the only reference for ecodesign of complex technological equipment.



# WHAT'S NEW: STEP 4





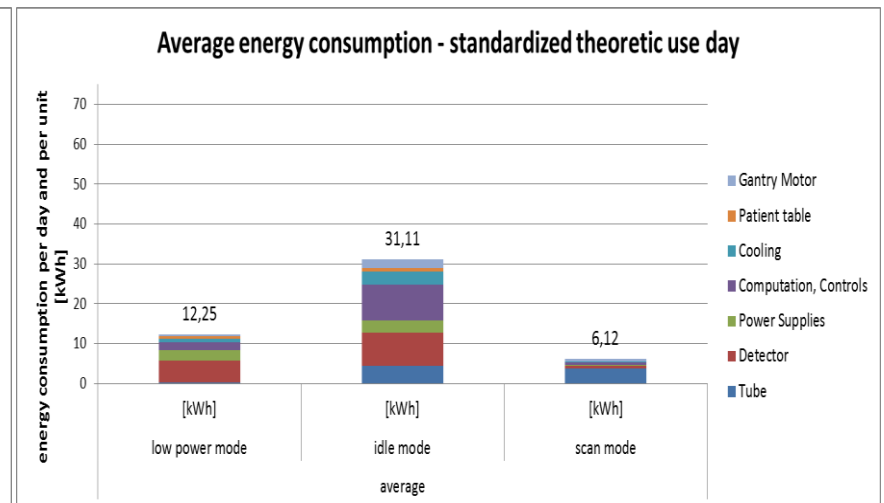
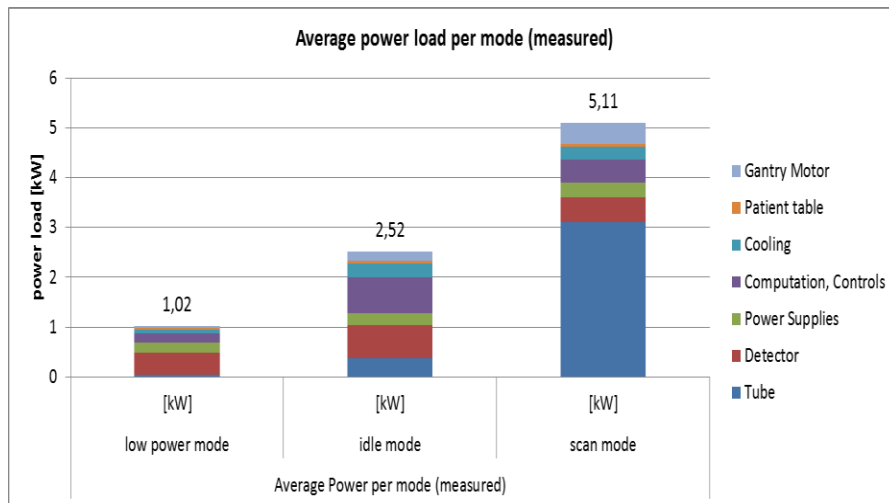
# MEASUREMENT METHODOLOGY

- No measurement standards exists for the measurement of the energy consumption of imaging medical devices
- The SRI SC realized that the development of a measurement methodology which allows solid and comparable results is the key to further develop any energy related initiative.
- Ad hoc Groups of Experts created for MRI and CT.
- The definition of a methodology requires around 1 year and field data. Therefore measurements are performed according to drafts to finalize the methodology (iterative process). This increases the complexity by far.
- The SRI measurement methodology is even more complex than a "normal" one as it should also be refined to ensure it is able to take into account all the possible improvement options (e.g. new modes which could be implemented in the future).



# IMPROVEMENT POTENTIALS

- A methodology has been defined in 2012 by an external consultant hired by the SRI SC to identify and quantify the maximum improvement potential for the reduction of the energy consumption of the selected modality.
- With the use of templates and direct interviews, the energy consumption is allocated to the different modules of the modality.





# IMPROVEMENT POTENTIALS

- Experts provide an estimation of the maximum improvement that can be achieved for each module taking into account technologies that are not yet available (under research or expected to be available at the end of the innovation cycle).
- The application of the maximum improvement potential to the company BAU provides the company specific BnyAT scenario (the maximum improvement could be applied to the baseline only in case a steady decrease of the environmental aspect is expected. This provides for a more ambitious target).

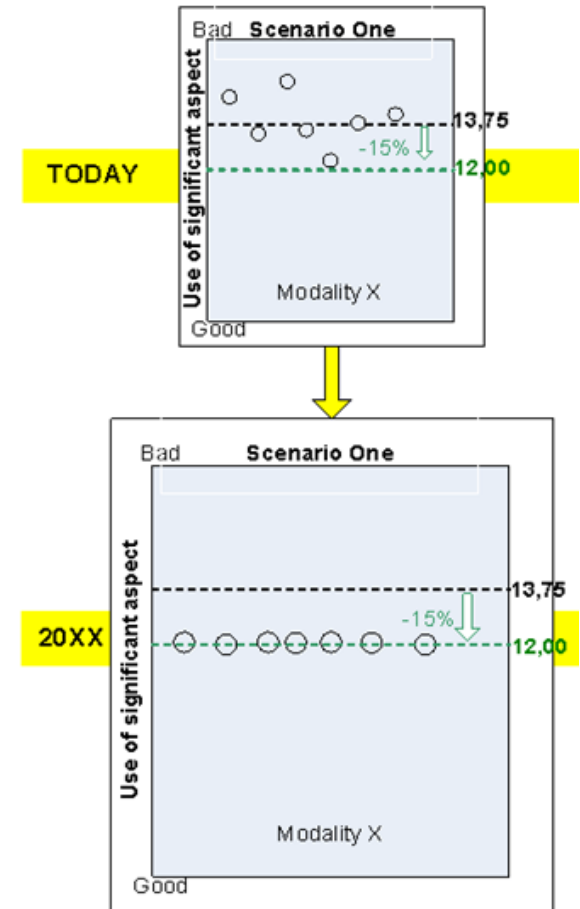
COMPANY NAME			
CT: ALLOCATION OF THE ENERGY CONSUMPTION PER MODULE PER MODE			
Applicable to the following CT models:	Model1, Model2, ect		
Allocations of energy use (%)	Off	Idle	Scan
Tube and generator chain			
Detector			
Power distribution unit and other power supplies			
Computation, Controls			
Cooling			
Patient table			
Gantry Motor			
	0,00%	0,00%	0,00%

CT: ALLOCATION OF THE ENERGY CONSUMPTION PER MODULE PER MODE			
Applicable to the following CT models:	Model1, Model2, ect		
Possible reduction(%)	Off	Idle	Scan
Tube and generator chain			
Detector			
Power distribution unit and other power supplies			
Computation, Controls			
Cooling			
Patient table			
Gantry Motor			

# BAU SCENARIO CALCULATION

- **Business as usual (BAU) scenario in 20xx:** This scenario represents the market fleet average in year 20xx under the assumption that no SRI is in place.
- **BAU calculation: SRIv2** - This methodology works fine for modalities for which a steady decrease in the environmental aspect (e.g. energy consumption) is expected as it sets an ambitious starting point for the definition of the target.

The scenario market fleet average is calculated assuming that in 20xx all companies will match the performance of the front runner today. Therefore companies' scenarios are equal to the performance of the front runner and so the fleet average.

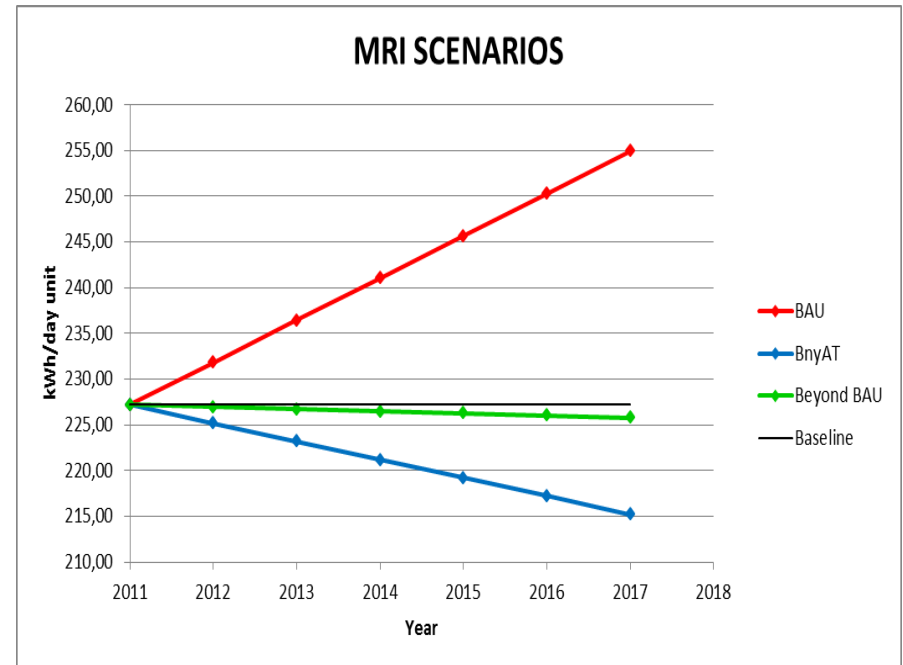






# BAU SCENARIO CALCULATION

- **BAU calculation: SRIV3**
- This methodology is more flexible, accurate and provides a better estimation of the scenario. It works fine for all modalities also in case the environmental aspect is expected to increase.
- Each Company is required to provide an estimation of its own fleet average in 20xx according to expected market positioning, research patterns and long term strategies. The weighted average against sales forecast in 20xx provides a good estimation of the market BAU scenario.





# BEYOND BAU CALCULATION

## SRIV2

- This methodology was developed in 2009/2010 and presented in the SRI v2. The scenario is calculated as the weighted average of companies' scenarios which are determined as follows:
  - All companies other than the front runner: Each company is assigned a value equal to the respective baseline value multiplied for the average of the reduction potentials declared by all companies
  - Front runner: the front runner is assigned a value equal to its baseline value multiplied for the reduction value he declared as it is reasonable to expect that for the front runner further improvements are more difficult to achieve.



# BEYOND BAU CALCULATION SRIV3 – CORRECTION FACTORS

- Each Company scenario is calculated as follows:
- **All companies other than the front runner:** The Company Beyond BAU scenario is calculated applying the maximum improvement potential to the BAU scenario scaled by a correction factor of 0,75.
- **Front runner:** The Company Beyond BAU scenario is calculated applying the maximum improvement potential to the BAU scenario scaled by a correction factor of 0,5.
- The Beyond BAU scenario fleet average is calculated as the weighted average against sales of the Companies' scenarios.

