



**THERAPANACEA**

Reinventing cancer care  
through **Artificial Intelligence**



[www.therapanacea.eu](http://www.therapanacea.eu)

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August 2021

# ART-Plan™

1<sup>st</sup> cloud-based suite fully exploiting the potential of artificial intelligence (AI) for radiotherapy.

TheraPanacea introduces ART-Plan™, its intelligent software suite delivering high-precision radiotherapy, benefitting patients and medical teams alike. ART-Plan™ optimises every step of the treatment process flow, from preparation to follow-up, by leveraging state-of-the-art advancements in artificial intelligence, data science and medical image processing.



**Annotate**  
AI-based Automatic Delineation



**SmartFuse**  
Smart tools for re-treatment



**Smart Plan**  
Optimal Plans in one click



**MR-Plan**  
Exclusive tools for MR Planning



**Adapt**  
Planning on the fly



**Power your treatment plans with AI!**

Spend your time where it matters, ART-Plan™ takes care of the rest.

## ART-Plan™ Main features



Cloud-based web application



AI-fueled workflow automation and acceleration



Seamless integration with any TPS and scanners



Continuously improving algorithms following guidelines recommendations



40+ cancer centres using ART-Plan™



More than 50,000 patients treated with ART-Plan™ to date

## Our certifications

CE TGA FDA

[Book a demo](#)

Contact us for a demonstration or for more information at:

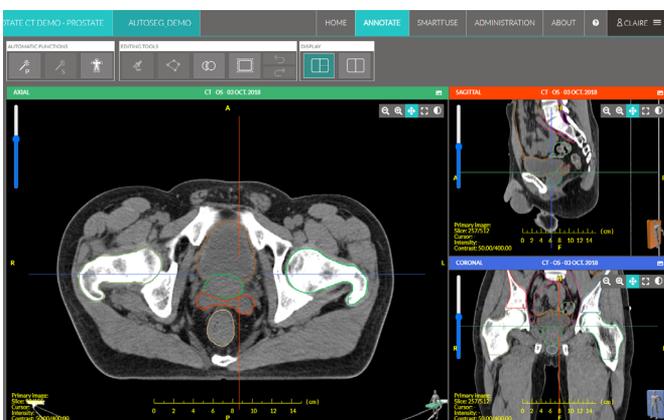
[mail@therapanacea.eu](mailto:mail@therapanacea.eu)

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# ART-Plan™: Annotate

Annotate uses deep learning to provide automatic delineation of organs at risk (OARs), Lymph Nodes (LNs) and some target volumes.

Annotate is an AI-powered, CE-marked and FDA-cleared software that provides zero-click, automatic delineation of more than 100 organs at risk (OARs) and lymph nodes with the same accuracy of clinical experts in up to 3 minutes. Annotate can be used on different anatomies including Head & Neck, Brain, Thorax, Breast, Abdomen, Pelvis Male & Female.



## Annotate Main features

 Automatic deep learning contouring in just one click

 100+ OARs and Lymph Nodes structures

 Seamless workflow, from scanner to TPS

 Continuously improving algorithms following expert knowledge and international guidelines

 Up to 95% of time saved in contouring

 MRI contouring for Brain, Abdomen and Pelvis (Male)\*

**Auto-delineate a full body  
in just 3 minutes!**

# ART-Plan™: SmartFuse

Discover SmartFuse, the first AI-powered solution offering rigid and elastic fusion in one click that you can trust. SmartFuse also offers management of 4D-CT and a real-time deformation of contours for faster replanning.

SmartFuse guarantees high-precision alignment between scans from different imaging modalities and is one of the best-performing imaging deformation software available on the market (evaluated through the POPI reference dataset). Clinical users report to be astonished by the quality of the fusions, especially of the deformable fusion, obtained with SmartFuse.



**Annotate**  
AI-based Automatic Delineation



**SmartFuse**  
Smart tools for re-treatment



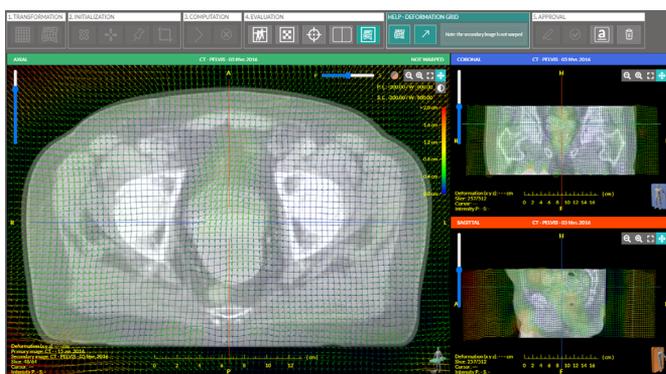
**Smart Plan**  
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## SmartFuse Main features

-  Rigid and deformable fusion
-  Multi-Modality (CT, 4DCT, CBCT, PET-CT, MRI) and contour deformation
-  Multi-Axis capability (axial, sagittal and coronal)
-  Powerful & smart validation tools including deformation field evaluation and more
-  Sub-voxel registration accuracy: TRE < tolerance value indicated by AAPM guidelines for 100% of the cases
-  98.6% of deformable registrations across all clinical cases deemed clinically acceptable by users\*

**Discover deformable registration with the power of AI!**

\*Internal study conducted in May 2021, on different anatomies (H&N, Brain, Thorax, Abdomen, Pelvis Male & Female) and imaging modalities (CT-CT, MR-MR, MR-CT, CT-MR, PET-CT-CT), across 216 clinical cases, by an independent panel of radiation oncologists.