



PRESS RELEASE

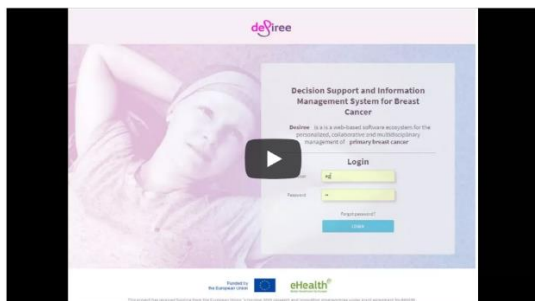
4 October 2019

Successful completion of the DESIREE Project –

Resulted technologies of real value to the operation of Breast Cancer

Units

- The DESIREE Project (EU **Horizon 2020** research and innovation programme, GA. No 690238) has successfully developed a working prototype of a **decision support system** for use in Breast Units (BUs) for the **personalized, collaborative, multidisciplinary case management**, mainly of Primary Breast Cancer.
- DESIREE platform enables breast cancer clinicians in their decision-making process, with technology that includes advanced clinical decision support systems (based on **formalized clinical guidelines, case-based reasoning, experience-based reasoning, knowledge discovery**) and **image-based breast and tumour characterization tools, physiological predictive modeling** of 3D breast reconstruction and **software for radiation toxicities assessment**.
- The DESIREE working prototype has been **validated extensively in the four clinical partners** of the project. More than 150 patient cases have been analysed and more than 240 decisions have been made. The validation included assessment of usability, medical relevance, perceived usefulness and benefits, and quality of care improvements as well.
- Significant indicator of the project **innovation profile** and the **scientific impact** of the work performed is **the high number of scientific publications** achieved by the DESIREE Consortium. All DESIREE publications are accessible through Zenodo repository here: <https://zenodo.org/communities/desiree/?page=1&size=20>
- **LIVE demo** is available upon request (mailto:desiree-contact@vicomtech.org). An introductory **demo video** is available here: <https://www.youtube.com/channel/UCOnZe91m5mmVpuyGvYovOEA>





San Sebastian, 3rd October 2019. Forty-two months after the Project Kick-off meeting in San Sebastian in February 2016, we are proud to announce that the Horizon 2020 EU funded project **DESIREE** - *Decision Support and Information Management System for Breast Cancer* - has been successfully completed in July 2019. DESIREE is leaving behind significant contributions that will be of real value to the operation of Breast Cancer Units throughout Europe and beyond!

It is a pioneering new decision support tool that intuitively presents clinical breast cancer cases and provides personalised recommendations based on evidence, previous cases and decisions. This enables breast cancer specialists make informed choices and select the most effective therapies. *“The decision-making process becomes far more consistent and efficient, and ultimately more personalized and effective for the patient herself”* explains DESIREE project coordinator Dr Iván Macía, Director of eHealth and Biomedical Applications at Vicomtech in Spain.

An international consortium of 11 companies, research centres, universities and hospitals under the coordination of the Spanish research centre Vicomtech, has worked thoroughly for the implementation of DESIREE. The Final Review meeting took place in September 2019 and the project is officially closed. The outcomes of the project though are the basis for further exploitation opportunities, with several modules being mature enough for quick commercialization. Path-to-market scenarios and future R&D collaborations are currently evaluated.

Especially significant to that direction has been the organization of two **DESIREE Workshops**, in the last, more mature project phase. Hosted within the Hospitals of St. Louis in Paris, France (March 2019) and Onkologikoa Cancer Centre in San Sebastian, Spain (July 2019), DESIREE decision-support system was demonstrated and exposed to a wide, cross-functional audience of experts. Researchers, Clinicians & Medical community, Technology providers, the Pharmaceutical Industry, Decision makers and Patients came together to exchange on breast cancer management. Detailed reports on these Workshops and on all DESIREE event organizations is available in [Events section](#) under DESIREE Website.

An overview of DESIREE project outcomes and technological contributions to the benefit of breast cancer patients has been selectively featured in the latest EU [CORDIS Results Packs](#) publication (Sep 19).

The multidisciplinary consortium

In order to optimise the value of the DESIREE project, all the experts of the value chain for the development and the validation have been involved in the project. The DESIREE consortium, coordinated by Spanish Vicomtech, is constituted by 11 participants from 6 countries: Bilbomatica, ERESA, Sistemas Genómicos and Onkologikoa from Spain, Ulster University from North Ireland, UK, the German ARIVIS, INSERM-LIMICS and Assistance Publique – Hôpitaux de Paris (AP-HP) from France, Medical Innovation and Technology from Greece and Houston Methodist Hospital from the USA.

This research and innovation project started in February 2016 with a duration of 36 months. It has been completed in July 2019, after a six-month extension. DESIREE has received funding from the **European Union’s Horizon 2020 research and innovation programme** under grant agreement No 690238.



Breast cancer: EU funding for new tools and solutions

Breast cancer claims the lives of more European women than any other cancer: one in eight women in the EU will develop breast cancer before the age of 85. Data from the European Cancer Information System (ECIS) indicate more than 400 000 new cases were diagnosed in 2018. By improving the quality of breast cancer services in Europe, the European Commission Initiative on Breast Cancer (ECIBC) aims to help reduce the burden of cancer and decrease the avoidable differences in breast cancer incidence, prevalence, mortality and survival. [Read more](#) on CORDIS Results Pack.

More on DESIREE Project:

[Website](#) | [Newsletter](#) | [Blog](#) | [Twitter](#) | [YouTube](#)

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Selected images:



“Relevant Outcomes on Big Data and Decision Support Systems for Cancer Mgt - DESIREE 360° Workshop”, San Sebastian, 07.19



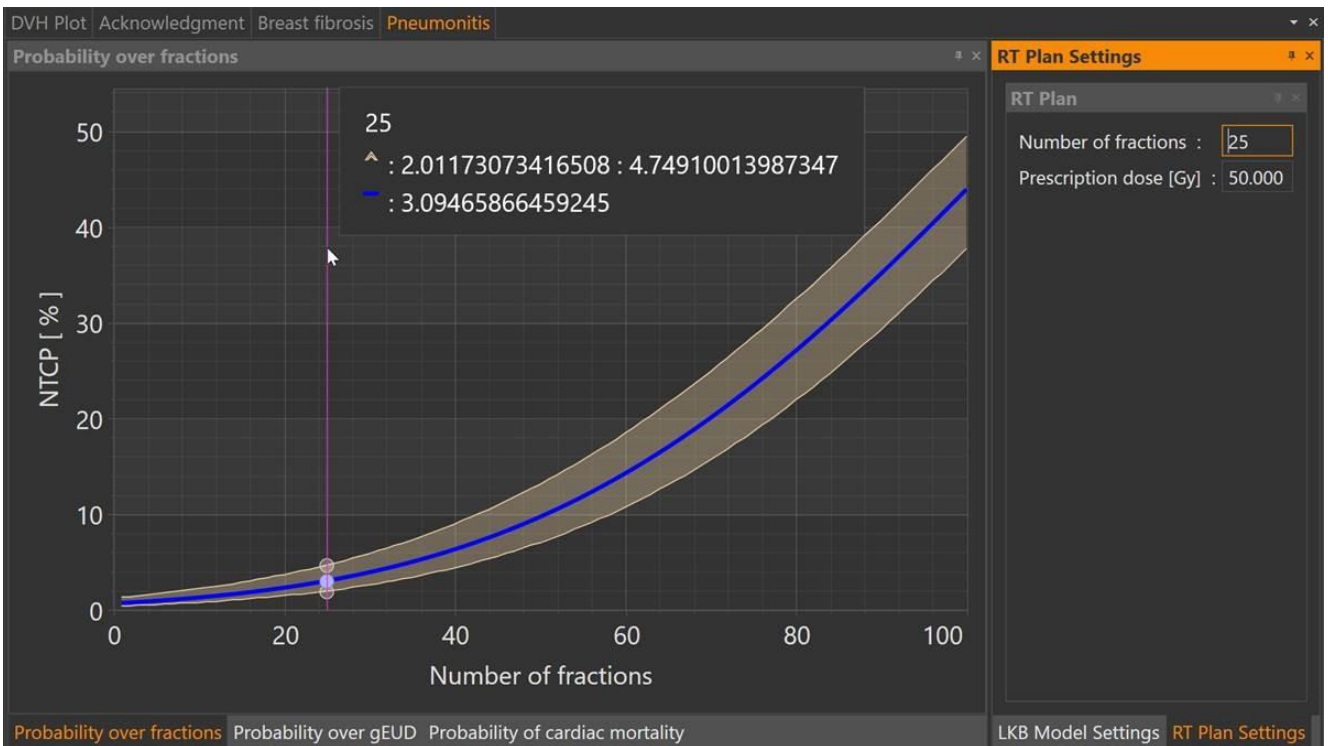
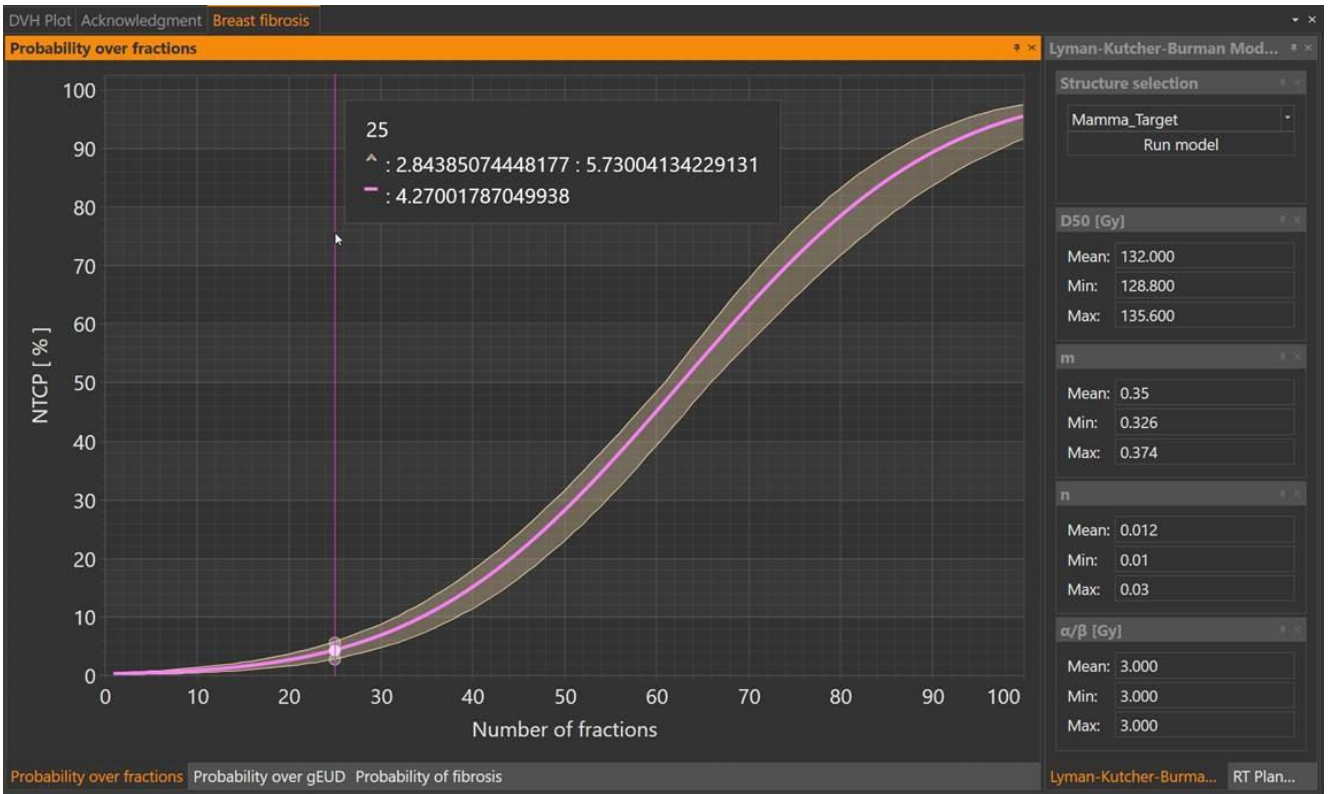
“Relevant Outcomes on Big Data and Decision Support Systems for Cancer Mgt - DESIREE 360° Workshop”, San Sebastian, 07.19



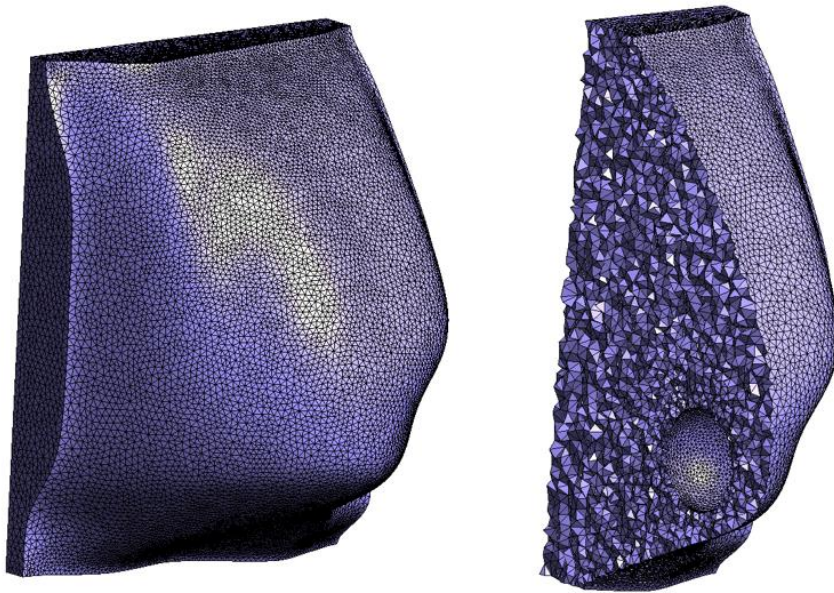
“DESIREE 360° Workshop”, Paris, 03.19



The DESIREE Consortium



Breast Cancer Radiobiological Plan Evaluator.



Reconstruction of the reference state of the breast from the MRI and Kinect breast surfaces after inversion of the gravity and virtual lumpectomy.

DESIMS / Committee v4.1(004) | Testing server | Naiara Muro

Patients | DESIMS ID: 050002 | PROFESSIONAL: Javi Real | SCENARIO: Scenario B: After therapy - Before Surgery | SESSION DATE: 2019-03-01 | Session setup

QUICK VIEW · STATUS · EVOLUTION · DECISION

MRI
2018-11-16
Previous mri: 2016-10-24
Image analysis outcomes

Biopsy date: 2018-02-12

Inmuno histochemistry study
Er: +30
Pr: +40
HER2 - IHC: ++
HER2 - ISH: Positive
KI67: 50

Histological study
Hist. type: Ductal invasive carcinoma
Hist. grade: Grade 2

HER2+ / HER2- / Er+ / Er- quadrant chart

CDSS

Get recommendations from: NCCN | Get recommendations

Recommendations | Other decisions | Similar cases

Select recommendation from NCCN

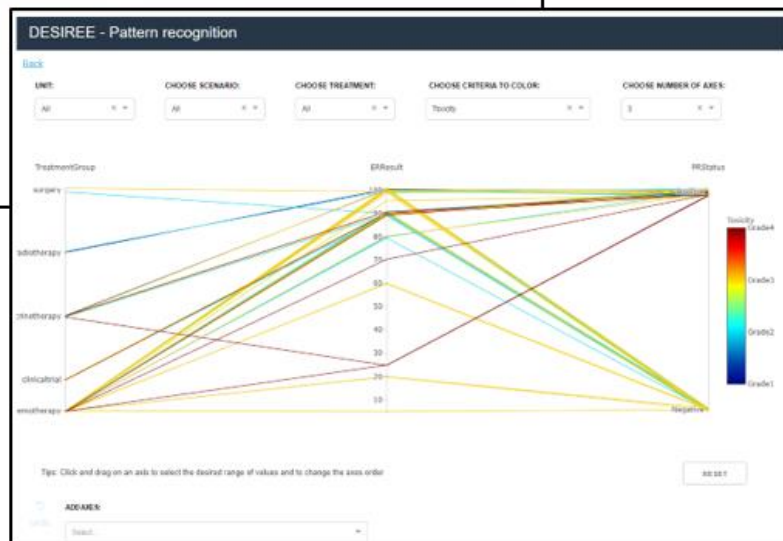
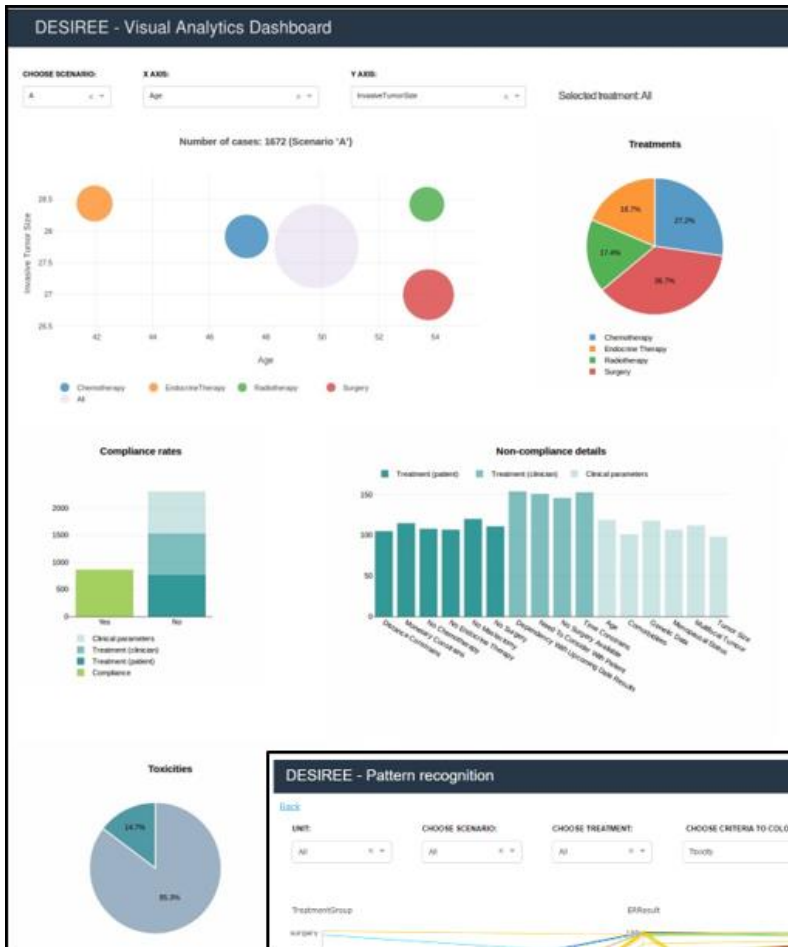
ONCOLOGY

1. Doxorubicin* 4/14 day 1 SHOULD	1. Doxorubicin* 4/14 day 1 SHOULD
1. Cyclophosphamide* 4/14 day 1 SHOULD	1. Cyclophosphamide* 4/14 day 1 SHOULD
1. Carboplatin 2A SHOULD	1. Carboplatin 2A SHOULD
1. Paclitaxel* 12/17 day 1 SHOULD	1. Paclitaxel* 4/14 day 1 SHOULD

SURGERY

1. Simple lumpectomy 1 SHOULD	1. Mastectomy 1 SHOULD
1. Axillary sentinel lymph node biopsy 2A SHOULD	1. Axillary sentinel lymph node biopsy 2A SHOULD
1. Axillary sentinel lymph node biopsy 2A SHOULD	2. Delayed breast reconstruction MAY

DESIMS, DESIREE Integrated Information System, showing different image data including 3D reconstruction, aggressiveness of tumour from pathological data and treatment recommendations.



Visual analytics tools for statistical and new knowledge visualization dash boards.