Introduction/Background Endometrial cancer (EC) is the most common gynaecological malignancy in developed countries. Currently, the extent of the surgical staging depends on a pre-operative risk assessment, but it is relatively inaccurate. This leads to an incorrect risk estimation of metastases at the diagnosis. Furthermore, the relation between the four molecular subgroups and the risk of tumour spread beyond the uterus has insufficiently been investigated so far. Despite that, the new classification is being quickly incorporated, and the use of staging surgery to assess the presence of metastases dissuaded. Indeed, the disease stage has until now been the most important predictor of prognosis. We aim to improve the current risk classification system by integrating disease stage and molecular classification allowing an accurate estimation of the risk and type of metastases and the risk of recurrence in EC patients.

Methodology EUGENIE is a prospective multicentre study including 1,000 EC patients. Patients will be included during the first four years and the follow-up will be at least two years. Patients with all histotypes EC, FIGO stage I–IV, will be enrolled. A surgical staging procedure will be performed in all patients, including assessment of lymph nodes (sentinel or lymphadenectomy), peritoneal biopsies, and omentectomy/omentum biopsies.

Results The protocol is submitted to the Ethical Committee at the UZ Leuven, Belgium. The study will start in UZ Leuven Gasthuisberg Campus and Fondazione Policlinico Gemelli IRCCS in Rome and it will last 6 years. Other centres are invited to participate and join EUGENIE.

Conclusion EUGENIE will generate the largest dataset about the presence of metastatic disease in each molecular subtype of EC. The results will help to determine the primary surgical approach and the need for adjuvant treatment. This will lead to a reduction of over and undertreatment and more efficient management of EC in the molecular era.