

Evans-Axelsson, Susan<sup>1</sup>, Abbott, Thomas<sup>2</sup>, Fullwood, Louise<sup>3</sup>, Omar, Muhammad Imran<sup>4</sup> Cavelaars, Marinel<sup>5</sup>, Asiimwe, Alex<sup>6</sup>, Roobol, Monique<sup>7</sup>, Ribal, Maria J.<sup>8</sup>, Auffray, Charles<sup>9</sup>, Devecseri, Zsuzsanna<sup>10</sup>, Smith, Emma Jane<sup>8</sup>, Van Hemelrijck, Mieke<sup>11</sup>, MacLennan, Steven<sup>4</sup>, Horgan, Denis<sup>12</sup>, Reich, Christian<sup>13</sup>, De Meulder, Bertrand<sup>9</sup>, Lancet, Doron<sup>14</sup>, Bangma, Chris<sup>7</sup>, Briganti, Alberto<sup>15</sup>, Tilki, Derya<sup>16</sup>, van Poppel, Hendrik<sup>17</sup>, Wirth, Manfred P. <sup>18</sup>, N'Dow, James<sup>8</sup>, Bjartell, Anders<sup>1</sup> and PIONEER Consortium<sup>\*</sup> 1. Lund University, Sweden, 2. Astellas Pharma, USA, 3. Pinsent Masons LLP, UK, 4. University of Aberdeen, nited Kingdom, 5. The Hyve, The Netherlands, 8. EAU, Guidelines Group, The Netherlands, 9. EISBM, France, 10. Sanofi Genzyme, USA, 11. King's College London, UK, 12. EAPM, Belgium, 13. IQVIA, USA, 14. Weizmann Institute of Science, Israel, 15. Scientific Institute and University Vita-Salute San Raffaele Hospitals Leuven, Belgium, 18. University Hospitals Leuven, Belgium, 18. University Hospital "Carl Gustav Carus", Technische Universität Dresden, Germany, 17. University Hospitals Leuven, Belgium, 18. University Hospitals Leuven, Belgium, 18. University Hospital "Carl Gustav Carus", Technische Universität Dresden, Germany, 17.

### **About PIONEER**

**Prostate Cancer DlagnOsis and TreatmeNt Enhancement** through the Power of Big Data in EuRope (PIONEER)

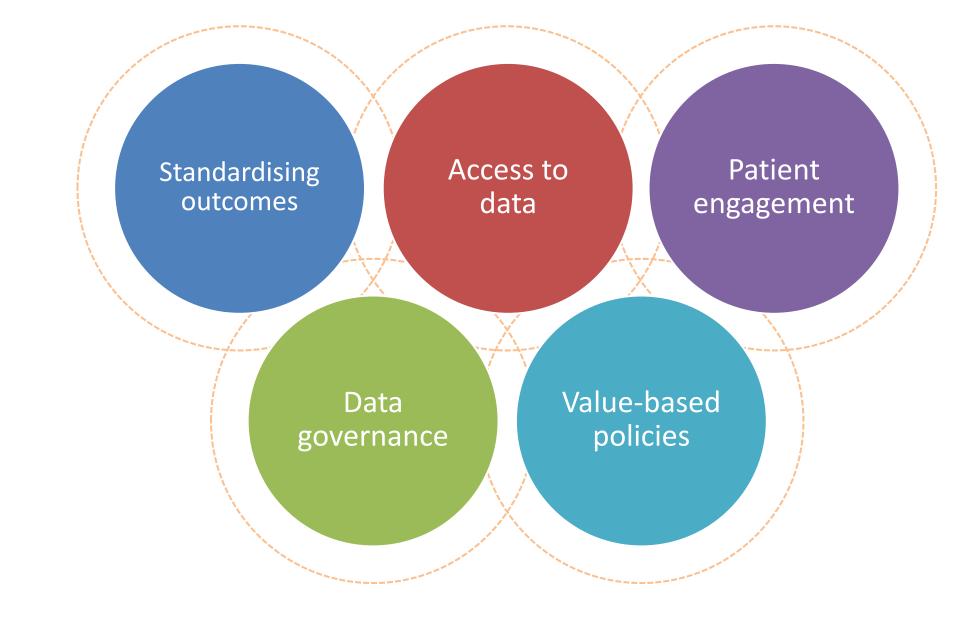
- An IMI2 funded public-private pan-European Network of Excellence for Big Data in Prostate Cancer.
- One of the EU's Big Data for Better Outcomes disease-specific projects.
- Consist of 32 stakeholders from across 9 countries.
- PIONEER is using a vast amount of available "big data" to improve screening, diagnosis and treatment of prostate cancer.





### **PIONEER's vision**

**PIONEERs vision is to re-orient the management and clinical** practice of prostate cancer towards a more outcome-driven, value-based and patient-centric healthcare system for all **European men living with prostate cancer.** 



PIONEER is funded through the IMI2 Joint Undertaking and is listed under grant agreement No. 777492 and is part of the Big Data for Better Outcomes Programme (BD4BO). IMI2 receives support from the European Union's Horizon 2020 research and the European Federation of Pharmaceutical Industries and Associations (EFPIA).

# PIONEER: European Commission Innovative Medicines Initiative funded BD4BO (Big data for better outcome) project on prostate cancer

### **PIONEER's 5-step approach**





Identify core outcome sets for localised, locally advanced, and metastatic prostate cancer.



Collect, standardise and integrate existing 'big data' from prostate cancer patients across different stages of the disease into a single innovative data platform.



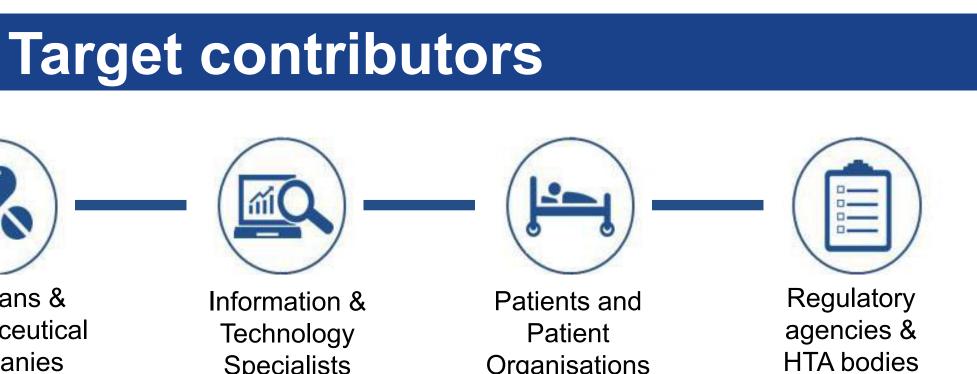
Use a unique set of methodologies and advanced analytical methods to answer the identified research questions.



Implementation of knowledge gained into clinical practice.







Organisations

**Specialists** 

**Individual databases are built on:** Retrospective and Prospective single institute, Prospective multi-institute, Population-based cohorts, Randomised control trial cohorts, Retrospective and prospective multi-institutional

# Identified data sources

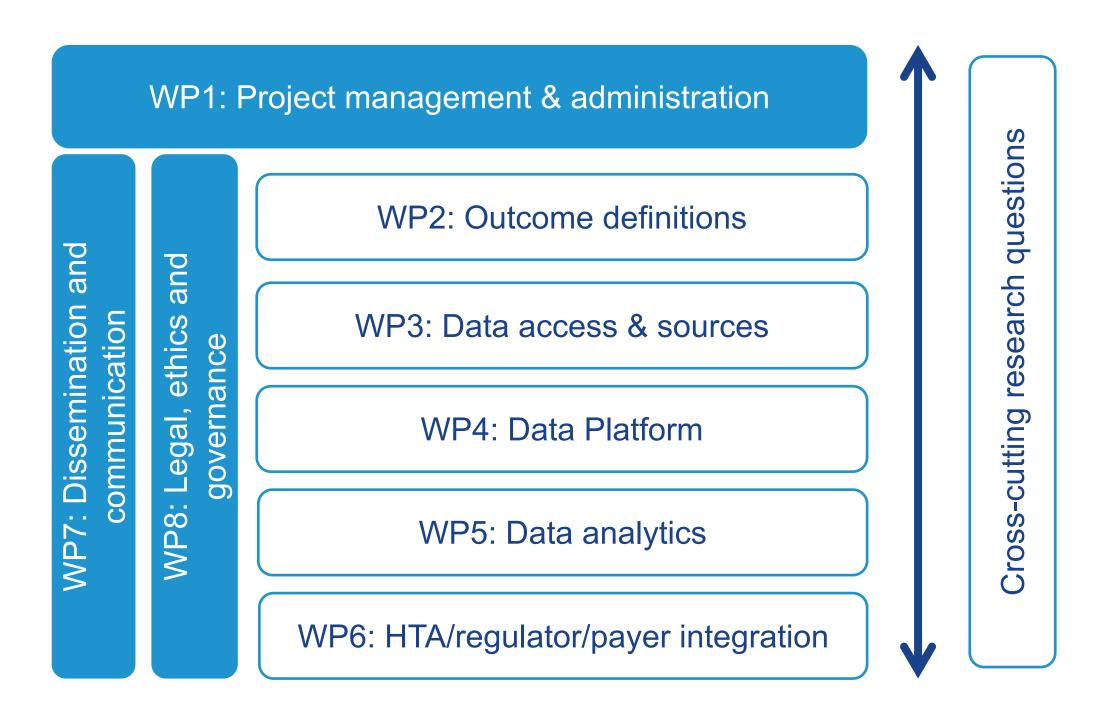
Over 80 European and non-European prostate cancer-based databases have been identified.





Identify critical evidence gaps in prostate cancer care through a prioritisation exercise including all stakeholders.

## 8 work packages with specific tasks





PIONEER has over 80 potential data sources identified

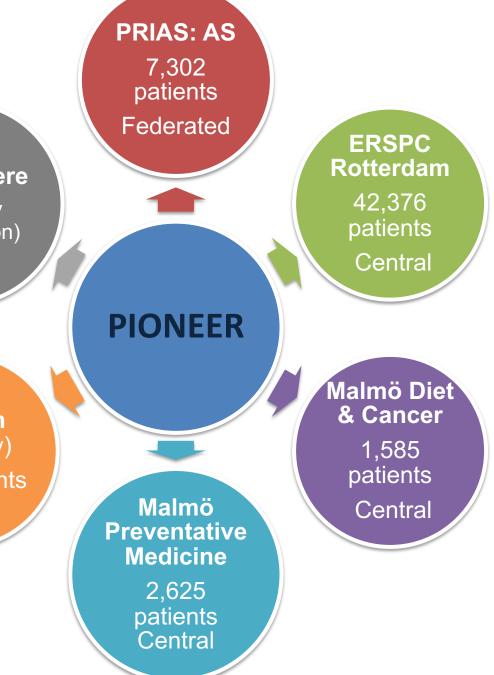
DataSphere (industry contribution Active Biotech (industry) 400 patien Central

• The PIONEER platform is being built using European and non-European

- in prostate cancer care and management.

### **Results & Conclusions**

### Mapping **completed** or **in progress** for the following datasets:



Big data approaches using real-life data show great potential to fuel a new era

• By harnessing the power of big data through collecting high-quality real-world data into a single innovative platform, health outcomes and healthcare systems in Europe can be maximized for men with prostate cancer.

### How to contribute

**PIONEER coordinator: James N'Dow, MD, PhD** j.ndow@abdn.ac.uk

**PIONEER Deputy coordinator: Anders Bjartell, MD, PhD** Anders.Bjartell@med.lu.se

WP3 coordinator: Susan Evans-Axelsson, PhD Susan.Evans-Axelsson@med.lu.se

