This event is funded by the Seventh Framework Programme, European Commission


## Thursday 5 November
## EU-India PARTNERING EVENT

# PROFILE FORM

| **ORGANISATION DETAILS** | | | | |
|---|---|---|---|---|
| Organisation name | Scottish Crop Research Institute (SCRI) | | | |
| Street * | Errol Road | | | |
| ZIP * DD2 5DA | City * Invergowrie, Dundee | Country * UK | | |
| Phone * +44 (0) 1382 562 731 (ext2810) | | Fax +44 (0) 1382 568587 | | |
| Email * Ankush.Prashar@scri.ac.uk | | Web http://www.scri.ac.uk | | |
| Employees | ☐ 1-10 | ☐ 11 - 50 | ☐ 51 - 250 | √☐ 250 + Yes |
| Organisation type | ☐ University | ☐ Research Center | ☐ Industry | ☐ SME ☐ Other |
| Department | Genetics | | | |
| Short description of your company/organization | SCRI is a Scottish success story and a lead centre in the UK research on potatoes, barley and soft fruits. This integrated multidisciplinary strategic research bridges rural production and urban wellbeing. The range of skills in genetics, physiology, agronomy and pathology available at SCRI have an unrivalled track record of delivering innovative knowledge, products and services that enrich the Scottish and UK economies.<br>SCRI's research focuses on processes that regulate the growth of plants and their responses to pests, pathogens and the environment and involve genetics to breed crops with improved quality and nutritional value. SCRI also houses the Commonwealth Potato Collection (CPC), one of the world's major genebanks preserving the diversity found in the potato and its wild relatives. | | | |

| **PARTICIPANT** | | | |
|---|---|---|---|
| Gender | ☐ Mr | ☐ Ms | Title **Dr** |
| First name | Ankush | | |
| Last name | Prashar | | |
| Position | Potato Molecular Geneticist | | |

| **PARTNERSHIP PROPOSAL** |
|---|
| EU-India partnering event session participation:<br>☉ *Sustainable production and management of biological resources from lan forest and aquatic environment*<br>☐ *Fork to farm: Food (including seafood), health and well being*<br>☐ *Life sciences, biotechnology and biochemistry for*<br>☐ *Health* |
| Areas of activity *(Free keywords)* **Climate Change, Water use efficiency, Nutrient use efficiency, Sustainability.** |

| **PROJECT DESCRIPTION** | |
|---|---|
| Title of your research project in one sentence | Establishing the genetic control and sources of genetic variation to improve water use efficiency. |
| Short description of project | Shortage of water has become a critical constraint and is considered a major threat to agricultural sustainability and food security in an era of climate change and competing uses for land. Thus, a great challenge for the coming decades is to maintain or increase food production with a reduced availability of water.<br><br>Different crops have different mechanisms to react to shortages of water and have developed varying degrees of tolerance to stress. The aim of work is to exploit the tolerance and resistance in Commonwealth Potato Collection (CPC) for potato to breed for high water use efficiency (WUE) while sustaining yield considering three key processes: (a) Physiological processes and mechanisms helping crops to acquire available water more efficiently; (b) gas exchange, correlation between carbon assimilation (biomass production) and transpiration (consumptive water use); (c) improving assimilate partitioning to more harvestable product. Cropping systems will be studied which will further enhance crop WUE. |
| Description of expertise offered | Experience and knowledge in genetics, genomics and physiology of plants. |

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| Description of requested partner expertise | Expertise in the areas mentioned above competence in soil plant interactions and agronomy of plants. |