What is the title of your project	Building for the Future: Joining the All-Ireland Pollinator Plan
What is the aim, impact and expected outcomes of this Project	The aim of this project is to build for the future of the "Bees and Insects of Belfield". This will be done by using a CNC router to build flat pack behives and insect hotels 1. The aim of this project is to build insect hotels in order to provide a safe environment for solitary bees, pollinators and pest controllers on and around campus. 2. Building behives at a fraction of the cost of buying will see UCD's apiary with a constant supply of hives as the apiary grows and becomes self-sustainable. 1.Insects are essential pollinators and contribute to about 35 percent of the world's crop production. Insect hotels will give insects a home in which to live and breed safely. The idea is to have the hotels throughout Belfield on the walkways to home these essential creatures. This way a quantitive and qualitive survey can be done and signposted so people visiting and using the woodland walks will get an idea of what kind of fauna is living close by. This can lead to future studies by staff and student alike and can hopefully lead to UCD joining the All-Ireland Pollinator Plan.
	2. 3D printed beenives will see Belfield's already established aplary with a constant supply of materials at a much reduced cost and ensuring self-sustainability. It will teach student and teacher alike about different aspects of the hive and space that bees need in their home and provide a platform for future designs that may help the bees combat varroa, other detrimental diseases and colony collapse disorder. This could give students and teachers an affordable entry into the world of beekeeping and provide the world of beekeeping with more knowledgeable bee guardians. Any funding made from the sales of beehives can go towards buying smart sensor technology for a hive so we can better understand the bee. Further beehives will allow UCD students and staff to continue taking part in international studies such as the COLOSS project UCD staff and students took part in over the summer. (2015)
What are the origins of this proposal?	Bees and other pollinating insects are in decline due to anthropological activity, climate change and habitat destruction. The idea arose between staff and student conversation about what we can do to help the insect populations and promote the problem to the general populace.
List up to six key milestones and their proposed dates.	 Source suitable, affordable materials in which to use Find/design a program in order to cut wood for hives and hotels Find sites for insect hotels with help from campus services Build hotels and hives Promote products throughout UCD Thank SPARC for the opportunity

Briefly outline the project budget and define any non financial resources required to complete the project.	Buy designs €50 per design (Designs 2x Beehive, 2x Insect hotel) €200 Wood materials € 63.55 each x 8 €508.40 (Marine ply) Sealant €26.99 (5Ltrx2) €53.98 Boiled linseed oil €8.29 (300mlx5) €41.45 Sundries €50 (screws, glue) Total= €853.83 Use of the UCD CNC router will be required
What will be the legacy of this project?	This project is about building legacy. It is about trying to solve small problems in the present that will help the future of bees, pollinators and beneficial insects in the future. It is about building a learning platform for staff and students alike to use in future studies to grow their academic careers while helping to protect essential pollinators for the foreseeable future. This project is also about getting UCD recognition with the All-Ireland Pollinator Plan and to join the long list of institutions involved.
Please tic the box below to indicate agreement to abide by the Terms and Conditions of the SPARC initiative	I agree
List the project team members and include the following details for each member, Name, Programme/School/Unit and stage (in the case of students). A short (30 words max) explanation of why each person is suited to their role in the project should also be included.	Emmanuel Reynaud: School of Biomolecular & Biomedical Science Emmanuel has access to and the skills to use the CNC router and lots of 3D printing experience Kevin Kenny:Technician with School of Agriculture and Food Science, based in Rosemount. Experienced horticulturist and Beekeeper wanting to better UCD, surrounding areas and improve the life of pollinators on campus. Edmond Kirwan: Horticulture, Landscape & Sportsturf Management Stage 2 Edmond is a bee enthusiast wanting to understand the hive better in order to try and design a hive that can help combat varroa mites and small hive beetles. Ellen Nugent: Equine Science Stage 2 Ellen is an experienced beekeeper and queen bee rearer. Ellen will bring essential information to the team about materials that can be used.
Is this project team complete?	Yes
If you answered 'no' to the question above please indicate the role(s) that remain to be filled on your project team.	
How will staff/student partnership be achieved through this project?	Staff members have access and training in using the CNC router and can pass on their knowledge to students, potentially opening student's minds up to creating new ideas and applications. Flat pack beehives and insect hotels will give both staff and student training in construction, environmentalism, ecology, sustainability, teamwork and innovation and may lead to new and innovative designs

Name and email address of Applicant	Emmanuel Reynaud emmanuel.reynaud@ucd.ie
When the project is complete will there be elements that require continued funding in order to be sustainable?	No
What is the expected duration of this project?	The project will be complete by end of semester two when we have signposted insect hotels around campus and a colony of bees living in a UCD 3D printed hive.