

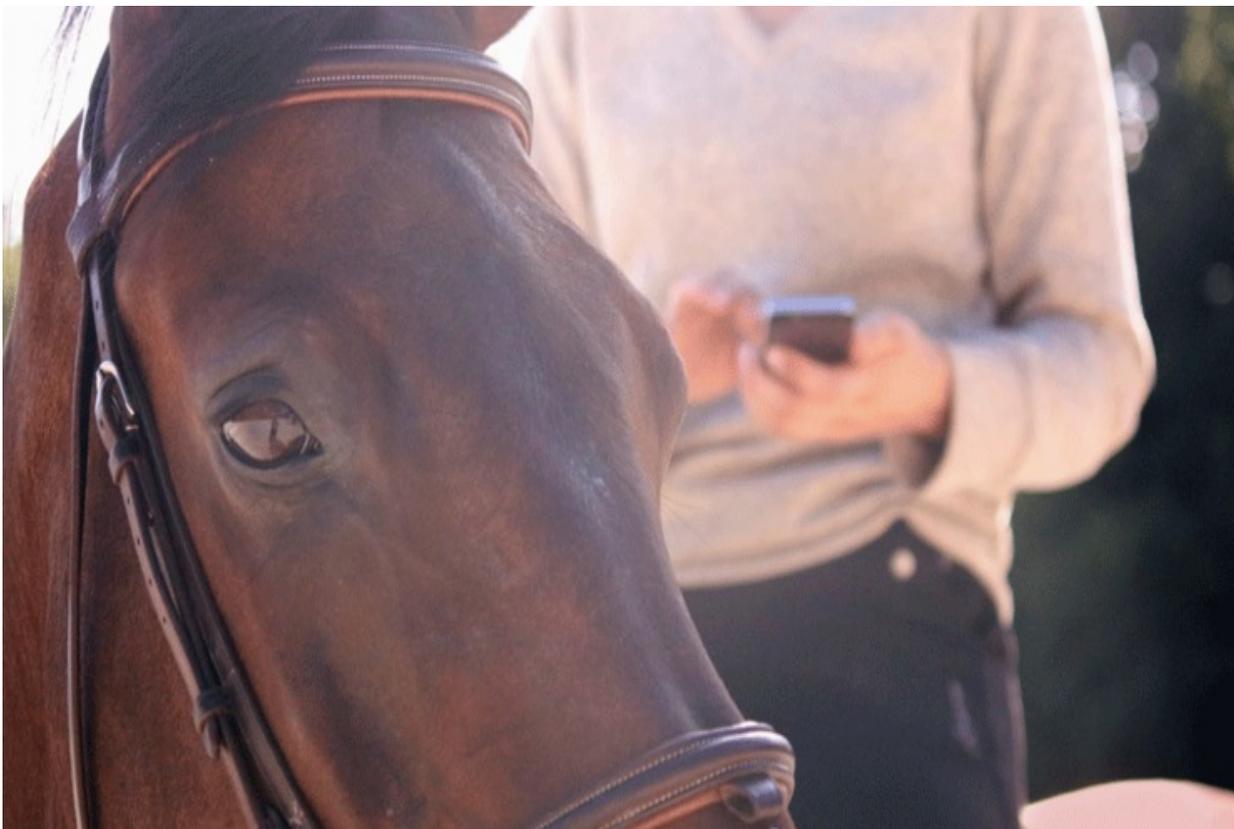
Interactions UTC

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Equisense, a marriage of horse-riding and innovation

Over the past months, various start-ups and small business concerns have benefited from the facilities offered at the UTC Daniel Thomas Innovation Centre, and in particular, over and above meeting rooms, from the Fab'Lab, advice on hand, technical rigs, etc. The start-up Equisense has been a beneficiary since April 2015.

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"Since last April, I have been working full-time on the Equisense Project at the UTC Innovation Centre" says Benoît Blancher a 2015 UTC graduate - Mechanical Systems Engineering (GSU). "As we are working on a connected object and it proves really useful to have the Fab'Lab next door, so to speak. At UTC we can exchange with our lecturers and professors and INPI (the French national industrial property rights agency) is never far away, as well as observing other students working other projects.

The students can work at the Innovation Centre via Lab. or project work. Besides, since our object is in the field of horse-riding, we note that the French Institutes for Horses, a benchmark institution, is in Compiègne and possesses many stables. All told, the environment is highly favourable for our project". Horsemanship is something familiar to Benoît who has been a keen rider for 10 years, notably in gymkhana competitions. "What I noticed was that there were no connected objects in horse-riding, a sport where there are numerous important parameters that relate to your mount's performance and well-being: speed, balance, irregular gait ... Following a summer placement with another UTC graduate's start up (designing a lamp and smartphone hook-up), I became interested in 3D printing and connected objects in general".

The first project developed at Equisense has the code-name Balios: it is a unit that is placed on the horse and serves to measure and analyse the animal's gait, to follow up its workout sessions, even when several riders mount that horse. For example, Balios allows you to have a precise vision of an obstacle circuit, where both performance and progress can be recorded: stride length, trajectories, jump curves, speed attained ... Balios therefore is an overall performance monitor that helps riders to adapt their work schedules to the horse; it is also accurate and easy to use. "Balios is perfect for all riders who mount more than once a week", adds Benoît Blancher. "Our objective is to enable riders, whatever their level and horsemanship skills, to progress and to take care of their horses' well-being". [To this end, it authorizes the riders to integrate the health care system for their horses. A print-out is available. The

vet. can also follow the treatments he/she has administered, notably when it comes to locomotion.

The sensor in Balios is full autonomous: it lights up and detects when it is on a horse's back and automatically records the data and forwards them to a phone, when the latter is close enough. "The following step will be to distinguish which horse it is on", adds Benoît. For the moment the interface is in English, French and German and can be used to record several horses as well as several riders. "We create a rider's profile and a horse profile and these can be shared among other riders", explains Benoît.

There is also a special interface for the trainers who can thus follow the workouts. Also propose special offers for professionals, notably a subscription where they can simultaneously benefit from an extensive series of sensors supplied under contract". The start-up has been testing viable prototypes for several months now and is getting the sales model ready for a market launch. "We raised the funds needed this summer and we are preparing a fund-raising campaign on Kickstarter, end October, so that we can propose our equipment directly to the American markets which tend to welcome technological innovations". The market launch for the first Balios devices is planned for year 2016.