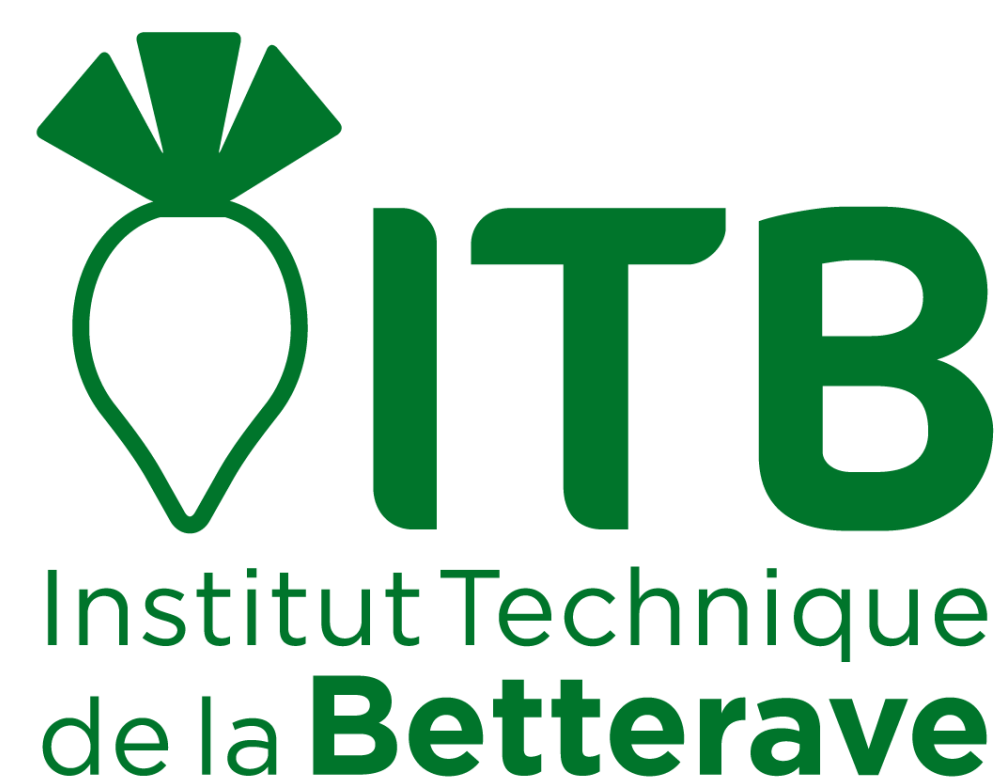




# Soil compaction in northern French sugar beet crop systems: diagnosis and prospects

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**Sold'Phy** is a collaborative study lead by Agrotransfert in Hauts-de-France region. It tackles with compaction risks in crop systems including productions such as sugar beet, potatoes, or industrial processed vegetables. A first step was to draw a picture of sugar beet parcels, completed by a technical survey to identify main compaction factors at cropping systems scale

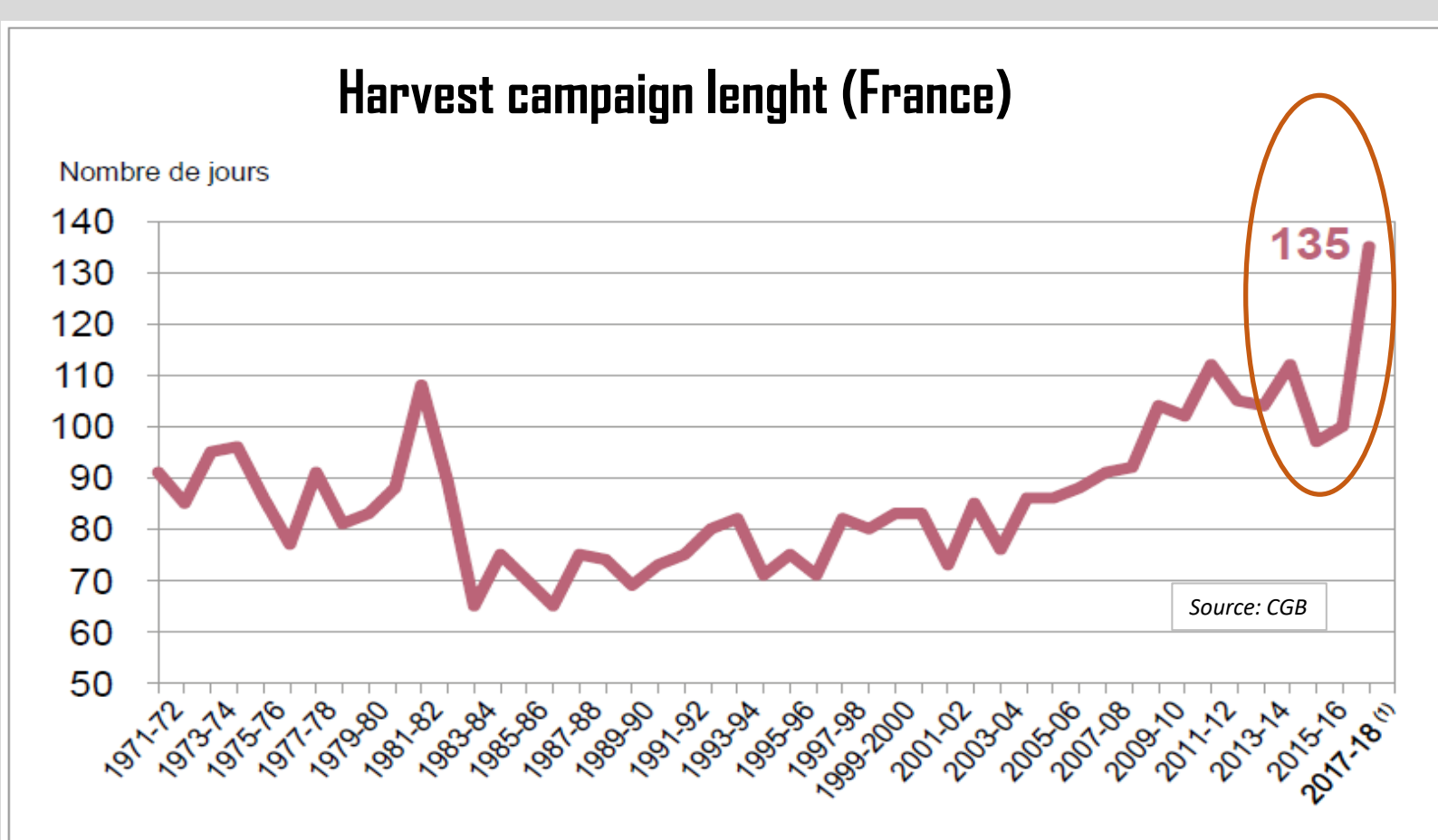
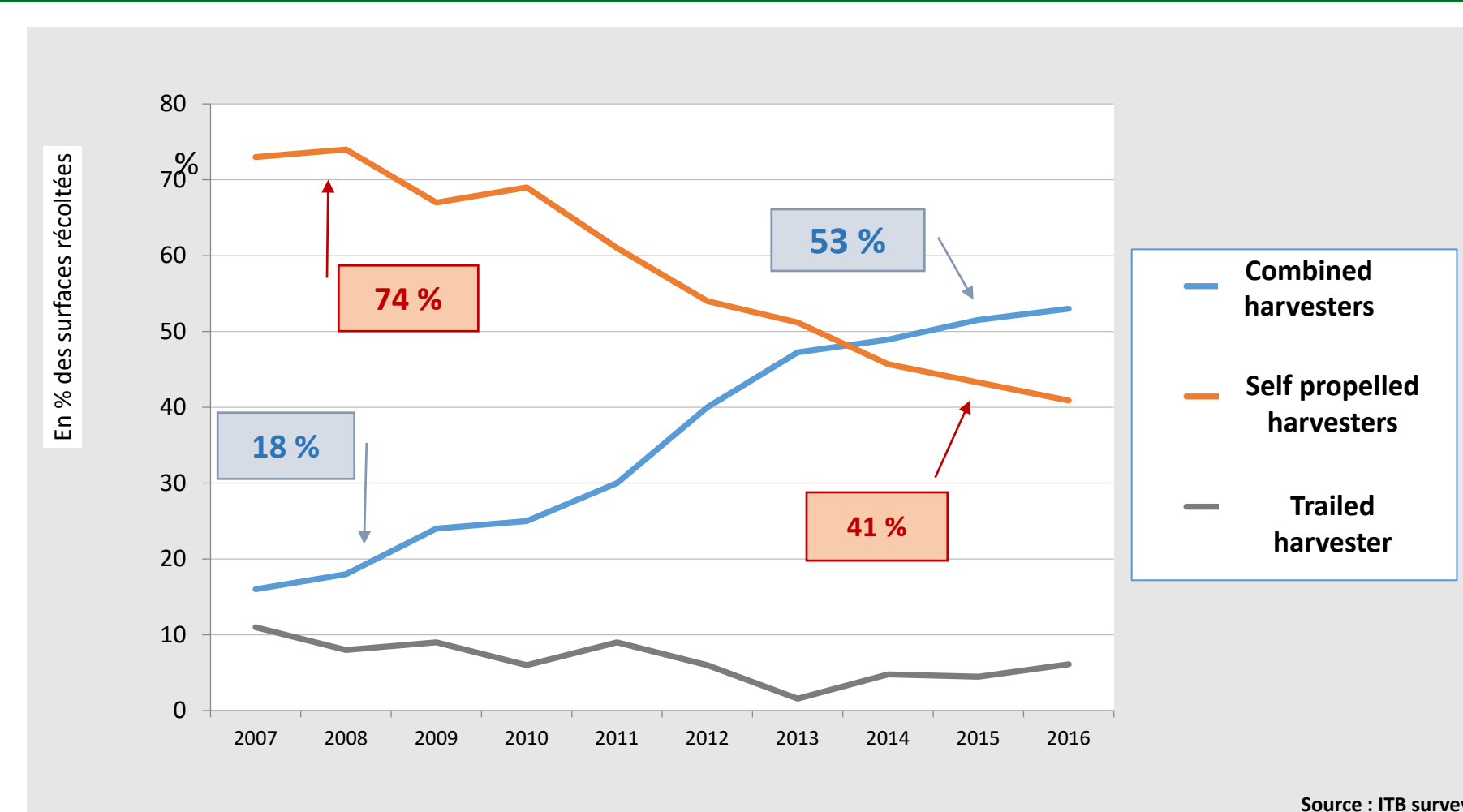
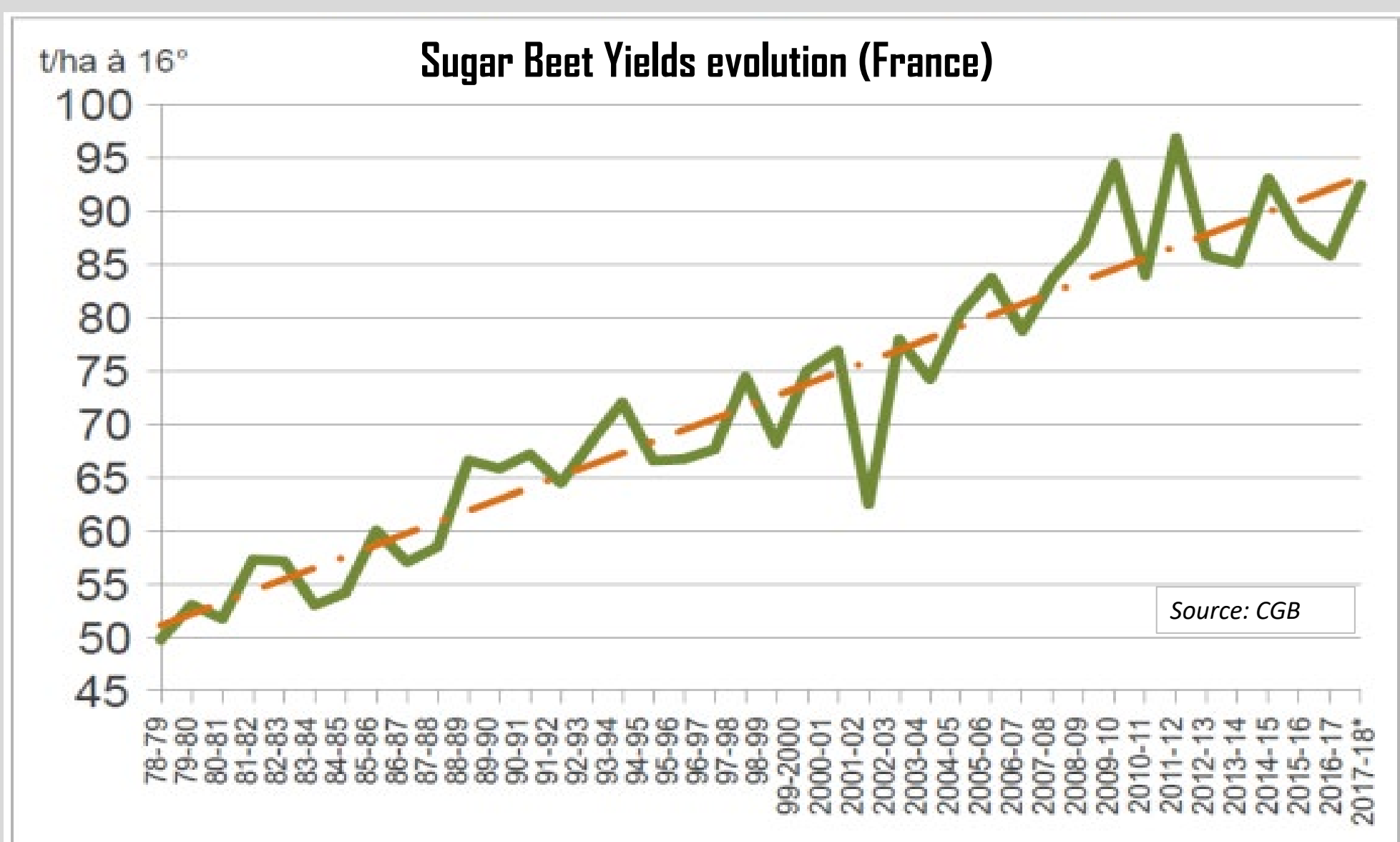
## SUGAR BEET HARVEST RECENT EVOLUTIONS

Sugar industry and field production generate a higher risk of compaction at harvest

Type of harvesting operation tend to increase machine load

Yield increase means higher load to harvest per ha + 40 % since 1990

Harvest campaigns duration are increasing



## FIELD OBSERVATIONS IN NORTHERN FRENCH SUGAR BEET AREA

Particular attention has to be accorded to compaction in depth, closely linked with machinery weight

Upper layer compaction



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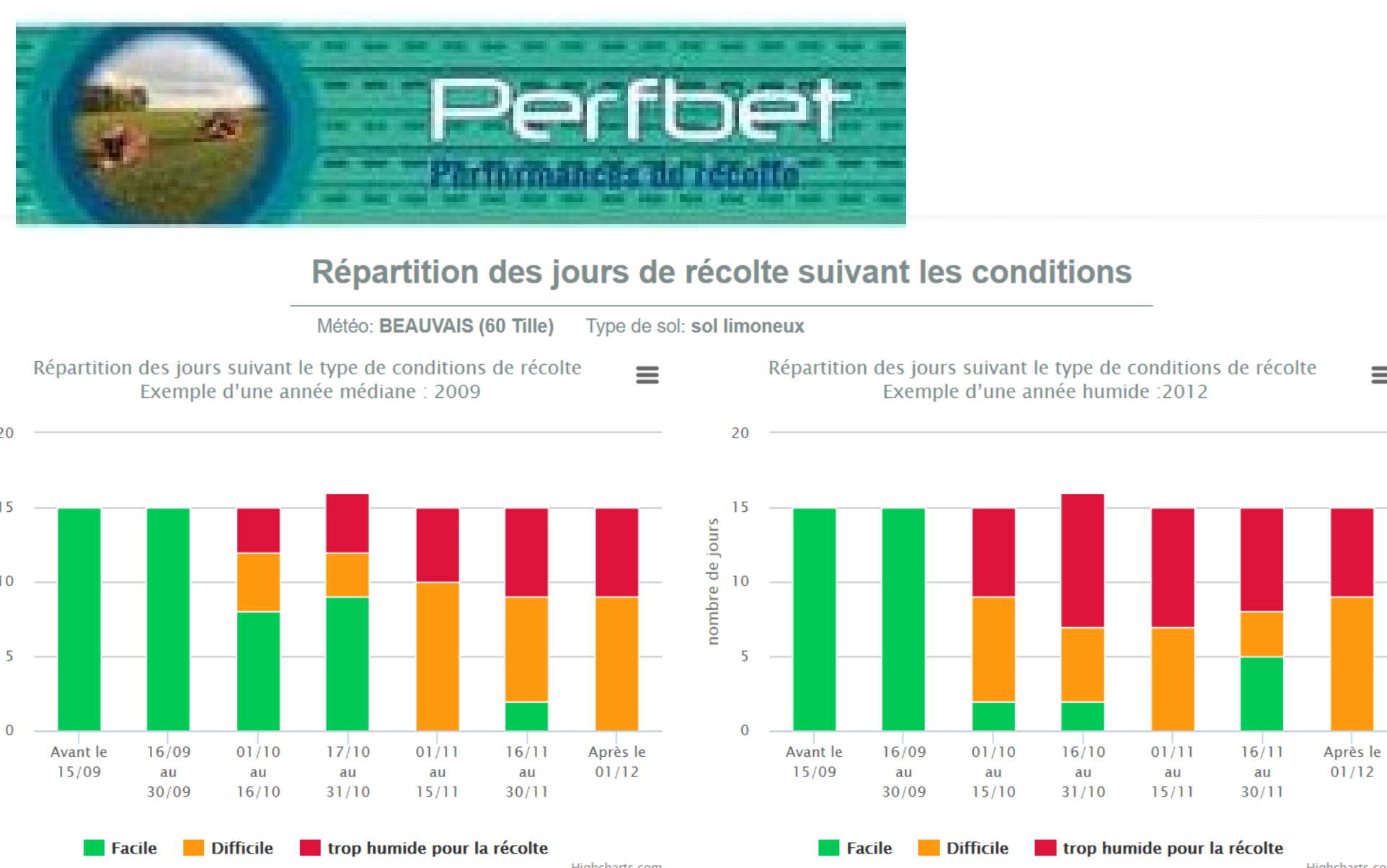
Deeper layer compaction



## SOLUTIONS AND PERSPECTIVES

Different solutions can be envisaged in the goal of anticipate risks

Adapt workload planning size (Perfbet on [itb@itbfr.org](mailto:itb@itbfr.org))



Make appropriate decisions in the field

Project ITB-Agrotransfert-Tereos for a decision support tool

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