The need for CTF arises because farm profit is being reduced by the compaction caused by heavy machinery running over a large proportion of field areas every year.

CTF is a sustainable solution that confines compaction to the least possible area of permanent traffic lanes. The benefits of changing to CTF for most field crops are numerous and significant:

**CTF is good for soils and crops**
- CTF improves crop health and yields
- CTF allows soils to recover their natural structure
- With CTF soils can be worked more easily

**CTF helps the environment**
- reduced greenhouse gas emissions
- improved water infiltration, storage and drainage
- reduced water run-off, erosion and flash flood risk
- reduced chemical losses
- conserves organic matter and soil fauna

**CTF reduces production costs**
- fewer and less intensive cultivations
- smaller and less powerful machines
- less wear and tear
- lower fuel consumption
- decreased labour input

### Economic and Practical:
- Crop yields and N recovery increased by around 15%.
- Little or no tillage needed to produce well structured friable seedbeds more easily achieved.
- Big savings in fuel use.
- More reliable spring sowing & direct drilling.
- Fuel use for crop establishment drops by at least 35%.
- Time and energy for crop establishment reduced by around 70%.
- Machinery costs reduced through lighter machines needing less power.
- More reliable field access on firm traffic lanes.
- No under- or over-lap for all operations.

### Environmental:
- Up to 4 times better rainfall infiltration.
- 10% increase in topsoil porosity.
- Up to 34% more plant available water.
- Up to 4 fold increase in hydraulic conductivity (drainage).
- All the above changes result in:
  - Better drainage, less soil erosion and reduced soil and chemical losses.
  - Improved water storage and less likelihood of flash floods from farmed catchments.
  - Potentially reduced emissions of harmful gases such as nitrous oxide and methane.
  - More soil-living animals.
  - N recovery increased by around 15% so reducing the threat of diffuse pollution and loss to waterways.

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### How is CTF adopted?
With careful planning, CTF can be put in place incrementally, on any scale and at low cost. The process is:
1. Carry out a review of your cropping system.
2. Decide what machinery you need to grow these crops with CTF.
3. Measure up these machines to see how they fit together.
4. Plan an appropriate CTF system that minimises conversion costs. Consider:
   - Guidance system to be used (if satellite, needs to be RTK).
   - What machines need to be changed.
   - What machines can be sold.
   - Timescale and rotation entry points.
   - Field layout and traffic orientation (probably same as tramlines).
   - What you will use for periodic infilling of the wheel tracks.
5. Employ CTF Europe to give you help during any part of the process, including selection of an appropriate satellite guidance system.

### Some CTF options
- **OutTrac CTF** - Two identically centred but overlapping track widths. A wider one for harvesters and a narrower one for all other equipment.
- **AdTrac CTF** - Two standard track gauges, the narrower using one track of the wider, resulting in an additional track. Implements can be any common width or direct multiple (see illustration below).
- **TwinTrac CTF** - Two track gauges, one straddling the other, with the width of implements being the addition of the two gauges or a direct multiple of them.