The technology surrounding milk harvesting has moved a long way in the last 10 years and several trends are already apparent.

**Cows**

Cows will change in the future in terms of size and production.

- Gradual changes in cow size will change the specifications for future milking facilities.
- Production increases will change the time required to milk them and affect the number of clusters a single operator can handle.
- Changes in milking frequency (e.g. once-a-day or two times in three days) will affect the specifications for future milking facilities.
- Continued research into cow physiology and behaviour will lead to better facility design for improved cow-flow and high throughput dairies.

**People**

As costs of labour increase and advances in automation reduce the need for repetitive milking tasks, labour will be used differently on many farms.

- A division is emerging between the physical tasks of milking and cow management tasks. Some farms now employ specialist milkers and some have two or three shifts working through a large part of the day and night.
- Milking management tasks are increasingly relying on reports generated by sensors and computers, with actions being applied to groups of cows rather than individuals.
- Farmers face the challenge of dealing efficiently with large numbers of cows whilst still maintaining the comfort of individual cows within the herd.
- Milking managers will require skills in managing people and computer information systems, as well as the cows.
- Nothing beats good, regular observation of cows by a skilled, experienced herdsman.

**Facilities**

The technology available for use in the dairy has multiplied and automation is becoming prevalent to increase the productivity of milking labour.

- Traditional milking equipment and facilities are becoming sophisticated, often being controlled by complex computer management systems.
- In the Netherlands over 50% of all new dairies have automatic milking installations. AMS currently milk 10% of the Dutch herd and are installed on many other commercial farms around the world.
- The trend to automate repetitive tasks will continue and should result in major changes to milking tasks, farmer lifestyle and even impact on dairy farming communities as a whole.
**Challenges for the future**

Some of the challenges that lie ahead include:

- applying automation effectively;
- up-skilling the workforce for their new roles in milk harvesting;
- the segregation and handling of milk for specialist uses;
- ensuring product quality and integrity;
- making sense of, and putting to productive use, the huge amount of data that can be automatically captured at milking time.
- developing systems that can automatically respond to unusual data.