

PRINTCHEESE

a delicious shape

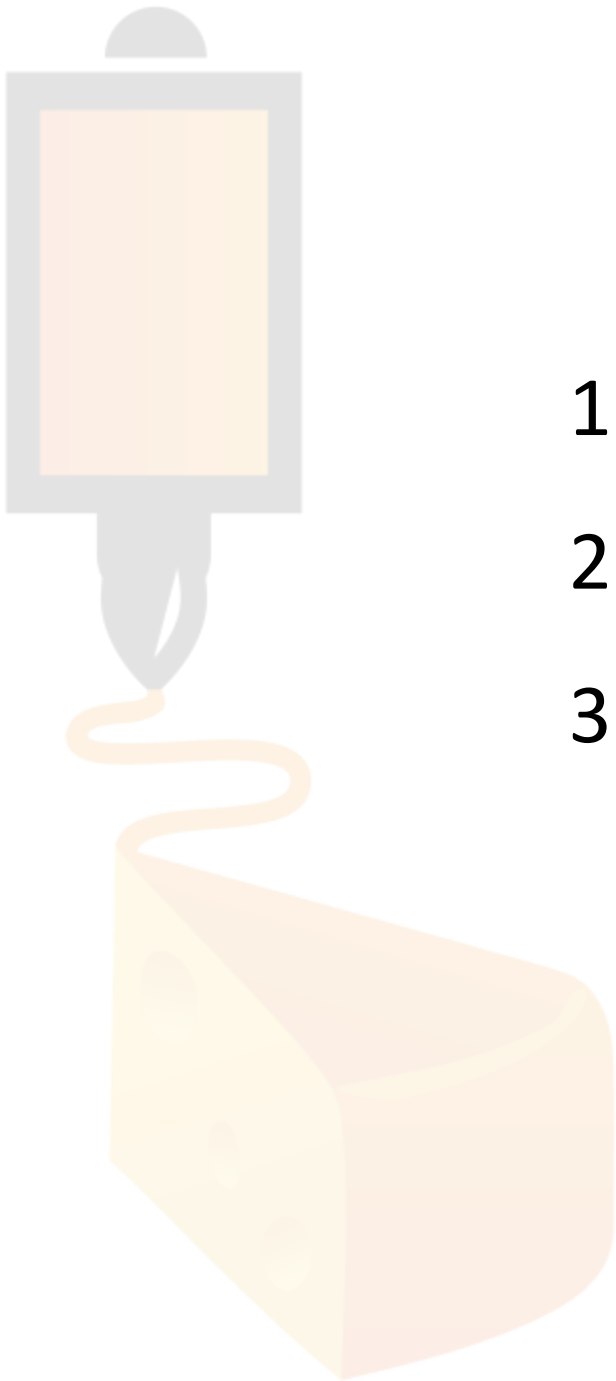
3D Food Printing conference

12th of April 2016, Venlo

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Our cows



Composition of cows' milk

Fat	4.4%
Protein	3.4%
Divided in:	
Casein	2.7%
Serum proteins	0.6%
Proteinaceous	0.1%
Lactose	4.6%
Organic salts	0.17%
Mineral salts	0.7%
Remaining	0.15%
Water	86.6%

Composition of different animal milk

In %	Water	Fat	Protein	Casein	Lactose
Cow	87.3	4.4	3.4	2.8	4.6
Goat	86.7	4.5	3.3	4.5	4.4
Sheep	82.0	7.6	5.3	3.9	4.8
Horse	89.2	1.6	2.5	1.3	6.2

From feed to taste

Feed	Milk	Cheese	Cheese for printing	Taste
Corn, wheat, potatoes, rye, barley	Firm fat	Light yellow	Easy to print	Good taste
Fresh spring grass, dried grass, dried clover, oats	Soft fat	Yellow cheese soft taste	A challenge for printing	Excellent taste

Raw material



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Research 3D cheese printing

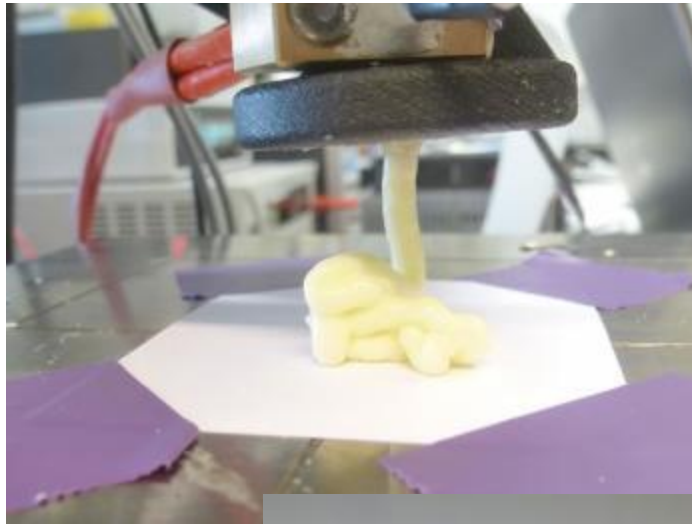
Commissioned by Print Cheese:

Two research organizations started a research.

The aim of this research was twofold;

- To research the 3D printing composition and optimize the preparation of a cheese matrix suitable for 3D printing.
- To explore the printing possibility of the cheese with the technical option.

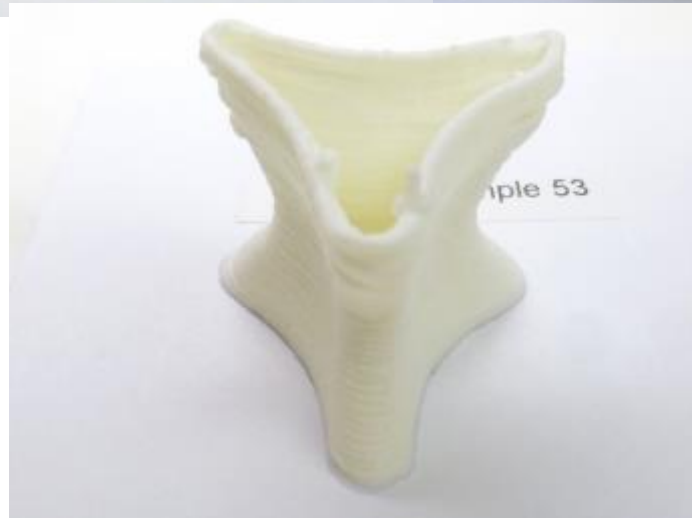
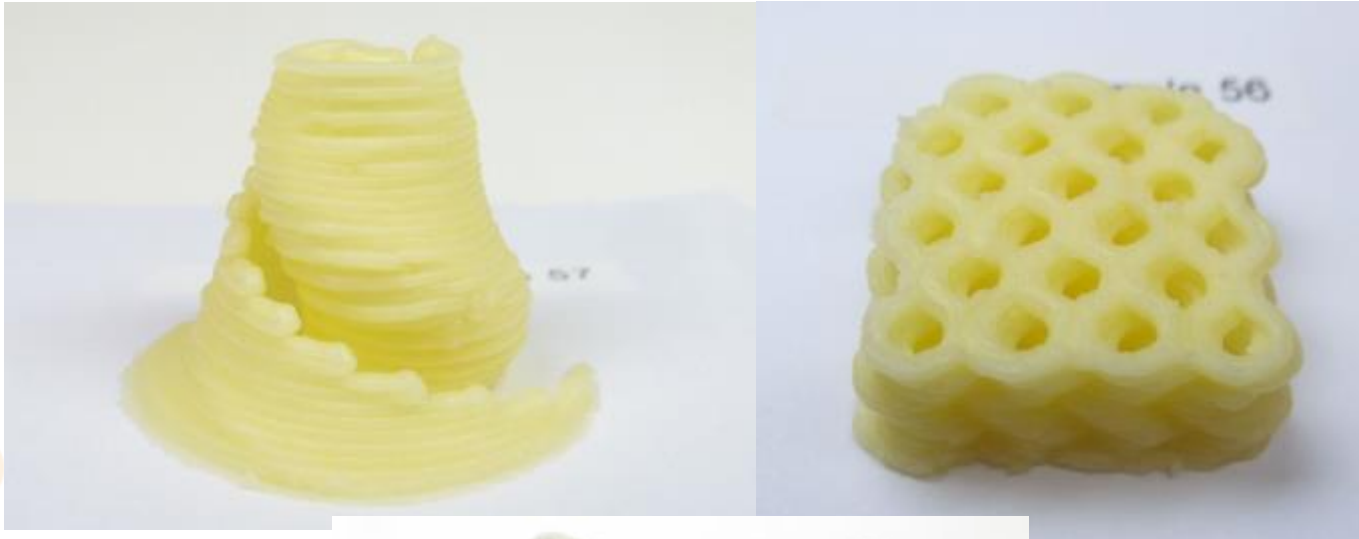
First testing day



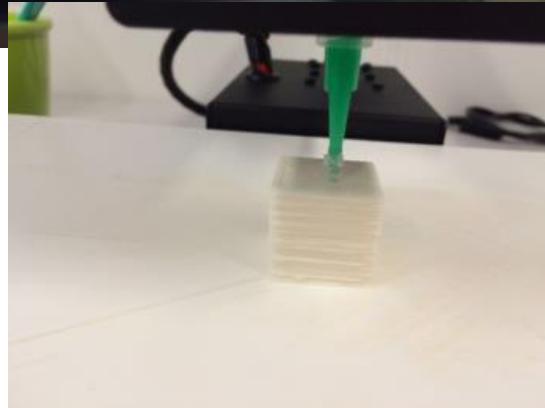
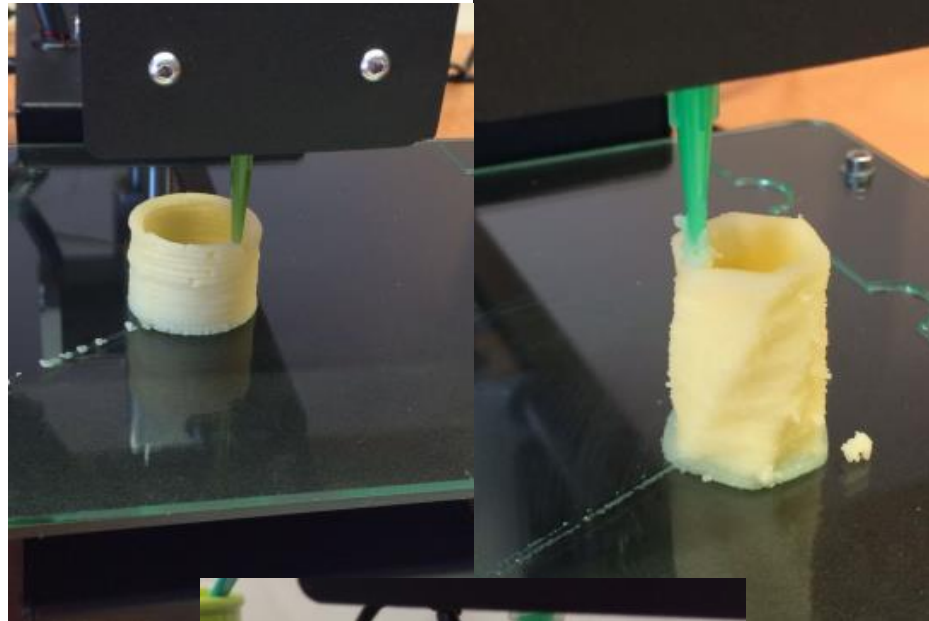
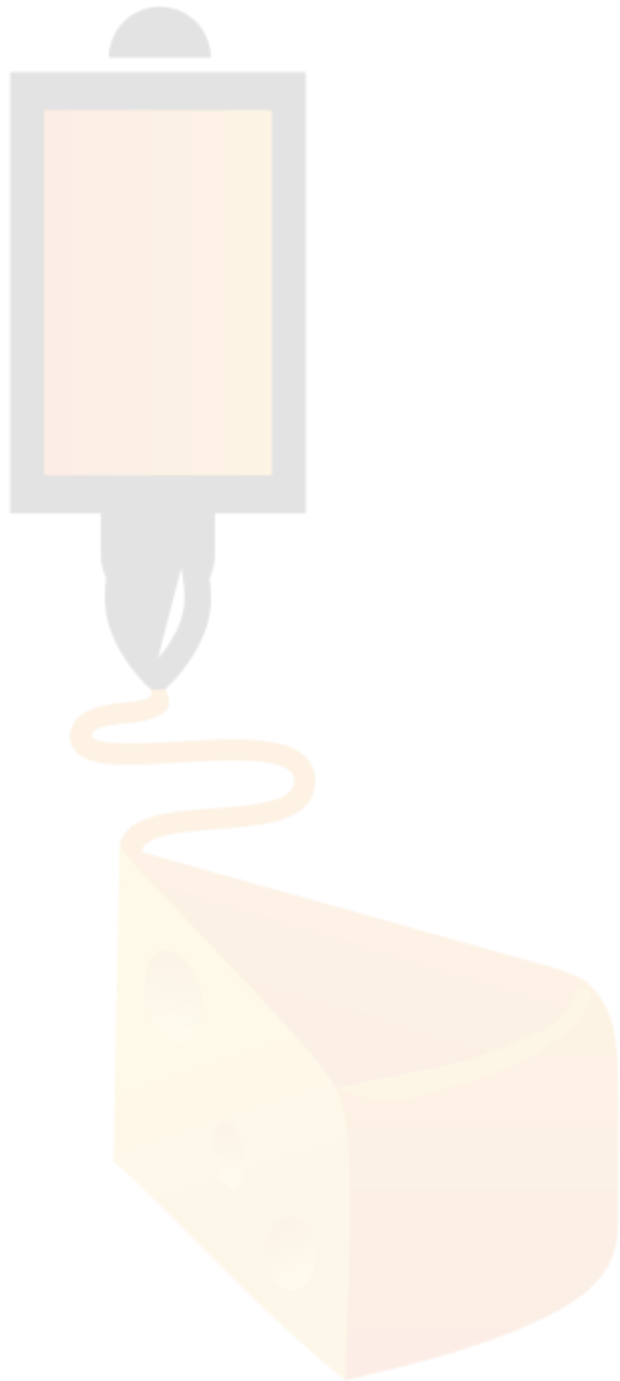
Second testing day



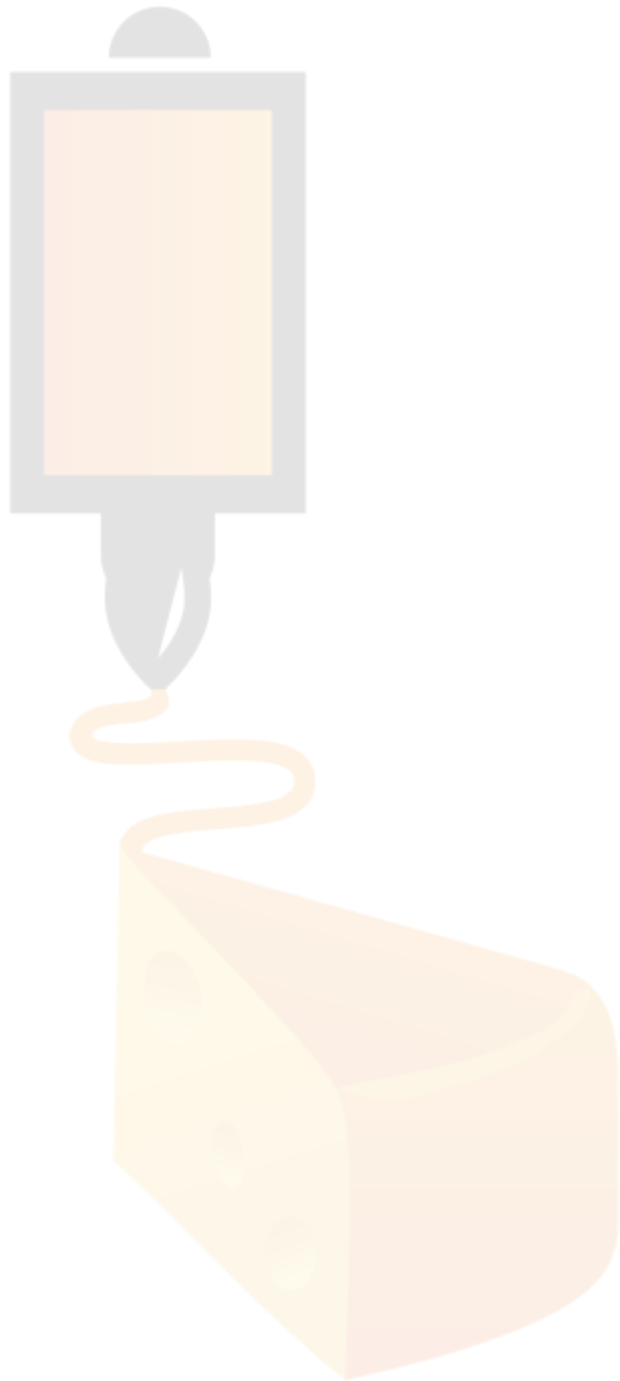
Third testing day



Future of Print Cheese



Future of Print Cheese



Film printing

Future of Print Cheese

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Onze diensten

Het maken van kaas en het verwerken ervan met een 3Dprinter is een spannend proces. Op verzoek verzorgt Print Cheese demonstraties en proeverijen op maat. Op dit moment biedt Print Cheese de volgende diensten aan.

Demonstratie

Print Cheese neemt een van haar printers mee op locatie waar 'Live' kaas wordt geprint. Deze kaas kan direct geconsumeerd worden. Afhankelijk van de ontwikkelingen kunnen er meerdere [eenvoudige] vormen worden geprint.

Proeverij

Op locatie wordt 'Live' kaas geprint en is er een kaasplank met verschillende ambachtelijk gemaakte [niet geprinte] kazen. In samenwerking met een eigen cateraar kunnen er ook in een gewenste thema diverse 'borrelhapjes' worden geserveerd.

Presentatie

Print Cheese presenteert over de ontwikkelingen van 3D foodprinters en over het proces kaasmaken. Tijdens de presentatie wordt er 'Live' geprint!

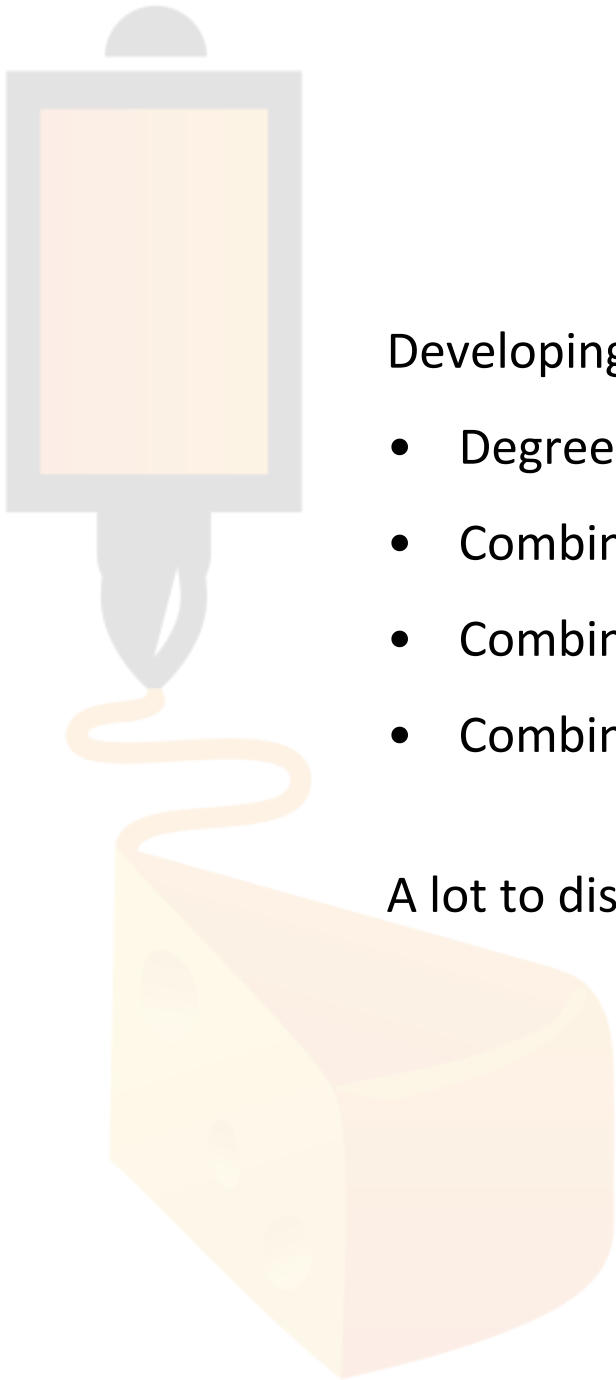


Future of Print Cheese

Developing of

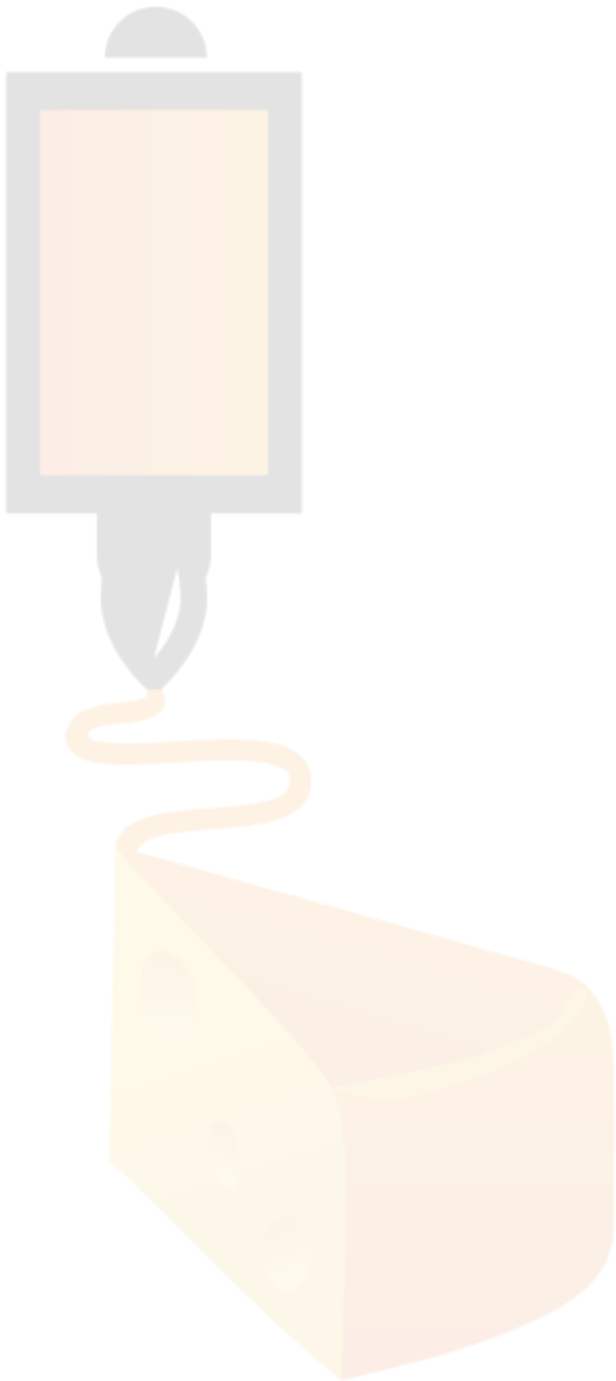
- Degree of shape
- Combining flavours
- Combining ingredients such as nuts and fruit
- Combining additives such as vitamins and minerals

A lot to discover and to develop



The following subjects were covered

1. Raw materials
2. Research into cheese printing
3. The future of Print Cheese



Thank you for your attention

