



European Project n° 613817

## 2<sup>nd</sup> Annual Meeting

**Assessment of modelling solutions**

**Pierluigi Calanca (Agroscope)**

November 3-4, 2015



**ModExtreme**  
**2<sup>nd</sup> Annual Meeting**  
**3-4 November, 2015**



# WP Objectives

- WP4, O4.1: Assess the capability of modified, process-based modelling solutions to simulate the impacts of extreme events on crop development and yields

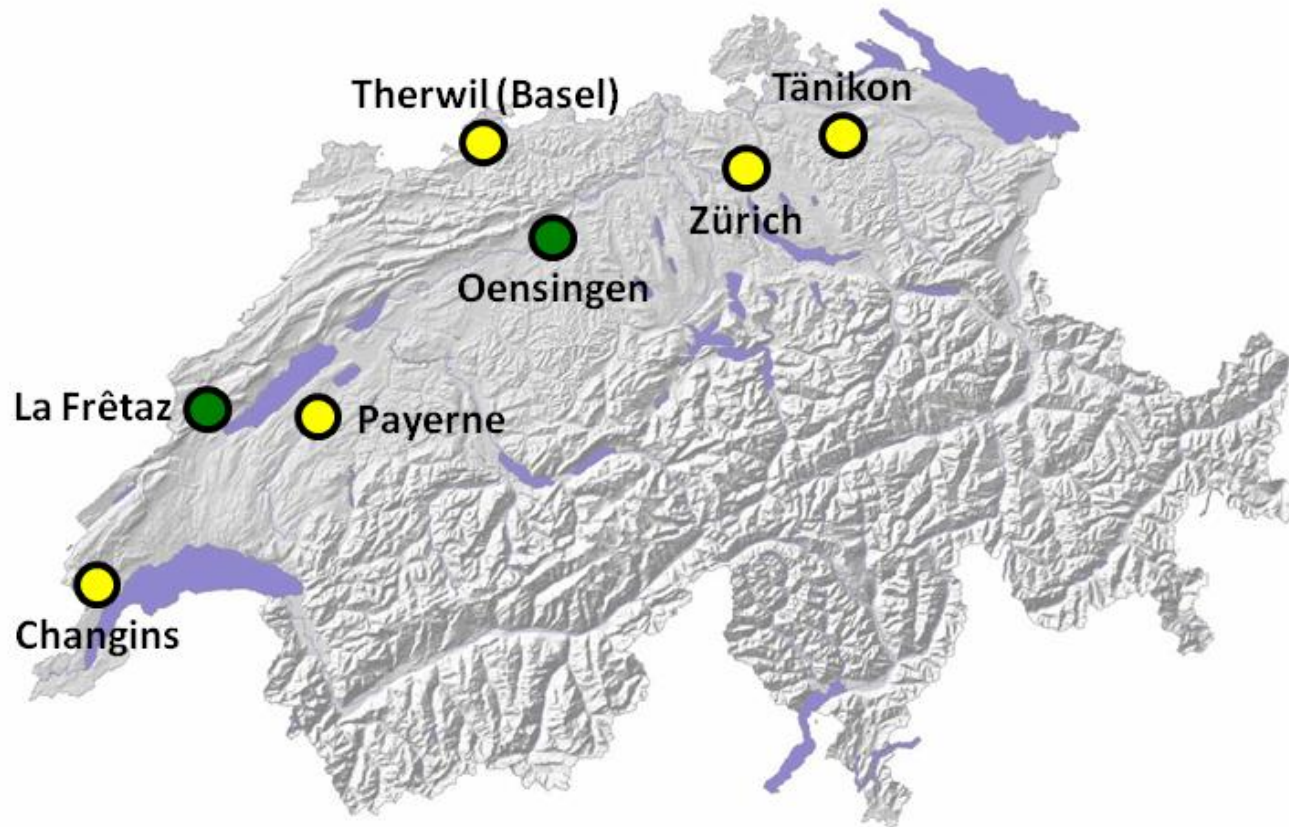


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# Assessment BIOMA-site 0.3.6

## Switzerland



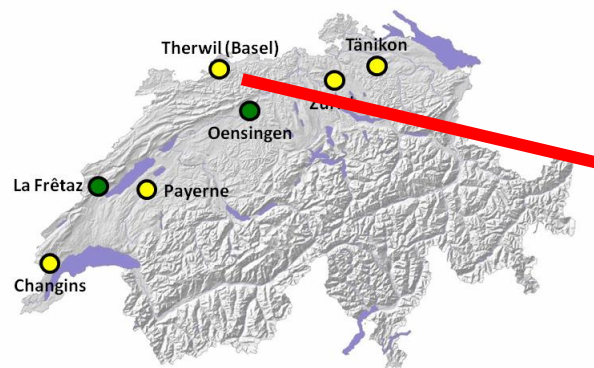
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winter wheat C			catch crop B			grass-clover A			Crops at sampling time in 1998 and subplot catch crop B			grass-clover A			winter wheat C			grass-clover A			winter wheat C			catch crop B			grass-clover A		
1						2						3						4											
block1						block5						block9						block13											
row	1	N	M	N	M	N	M	O	O	O	O	O	D	D	D	D	D	K	K	K	K	K	K	K	K	K	K		
		1	2	3	4	5	6	25	26	27	28	29	30	49	50	51	52	53	73	74	75	76	77	78	79	80	81		
2	D	D	D	D	D	D	K	K	K	K	K	K	N	N	N	N	N	O	O	O	O	O	O	O	O	O	O		
	7	8	9	10	11	12	31	32	33	34	35	36	55	56	57	58	59	60	79	80	81	82	83	84	85	86	87		
3	O	O	O	O	O	O	N	M	N	M	N	M	K	K	K	K	K	K	D	D	D	D	D	D	D	D	D		
	13	14	15	16	17	18	37	38	39	40	41	42	61	62	63	64	65	66	85	86	87	88	89	90	91	92	93		
4	K	K	K	K	K	K	D	D	D	D	D	D	O	O	O	O	O	O	N	M	N	M	N	M	N	M	N		
	19	20	21	22	23	24	43	44	45	46	47	48	67	68	69	70	71	72	91	92	93	94	95	96	97	98	99		

Fig. 1. Field map of the DOK farming systems trial in Therwil (Baselland, Switzerland). N: NOFERT, M: CONMIN, D: BIODYN, O: BIOORG, K: CONFYM, black fields with white letters indicate plots with normal fertilization intensity (1.2 livestock units  $\text{ha}^{-1}$  (LU) in the first and second crop rotation period (CRP), 1.4  $\text{LU ha}^{-1}$  in the third CRP, grey ones reduced intensity (0.6  $\text{LU ha}^{-1}$  in the first and second CRP, 0.7  $\text{LU ha}^{-1}$  in the third CRP) and those without manure application are white.

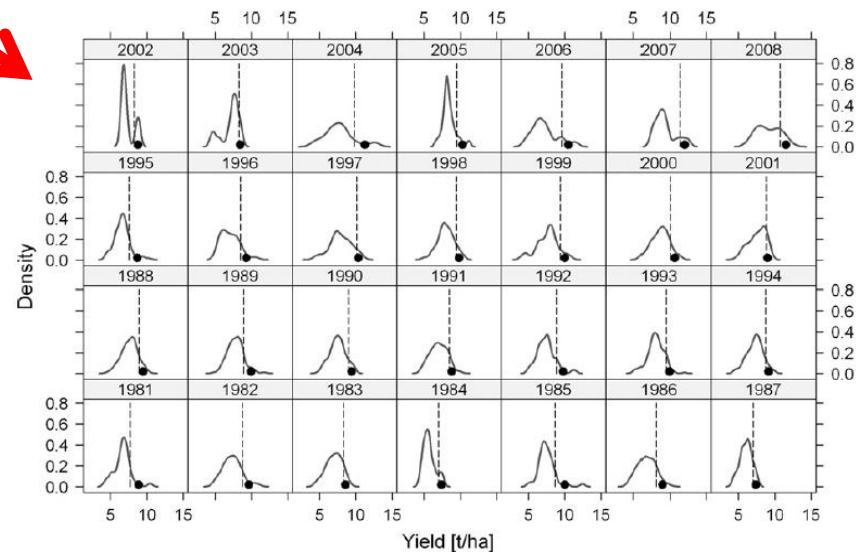
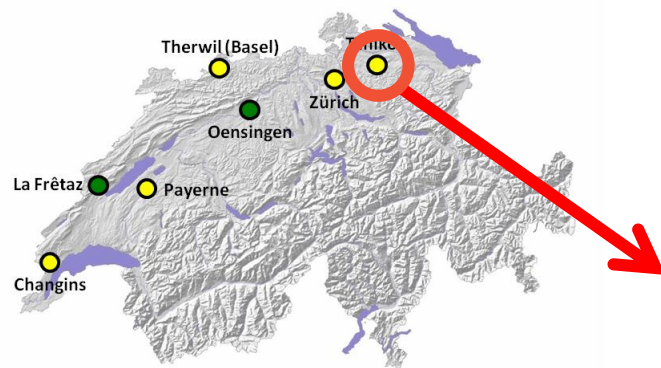


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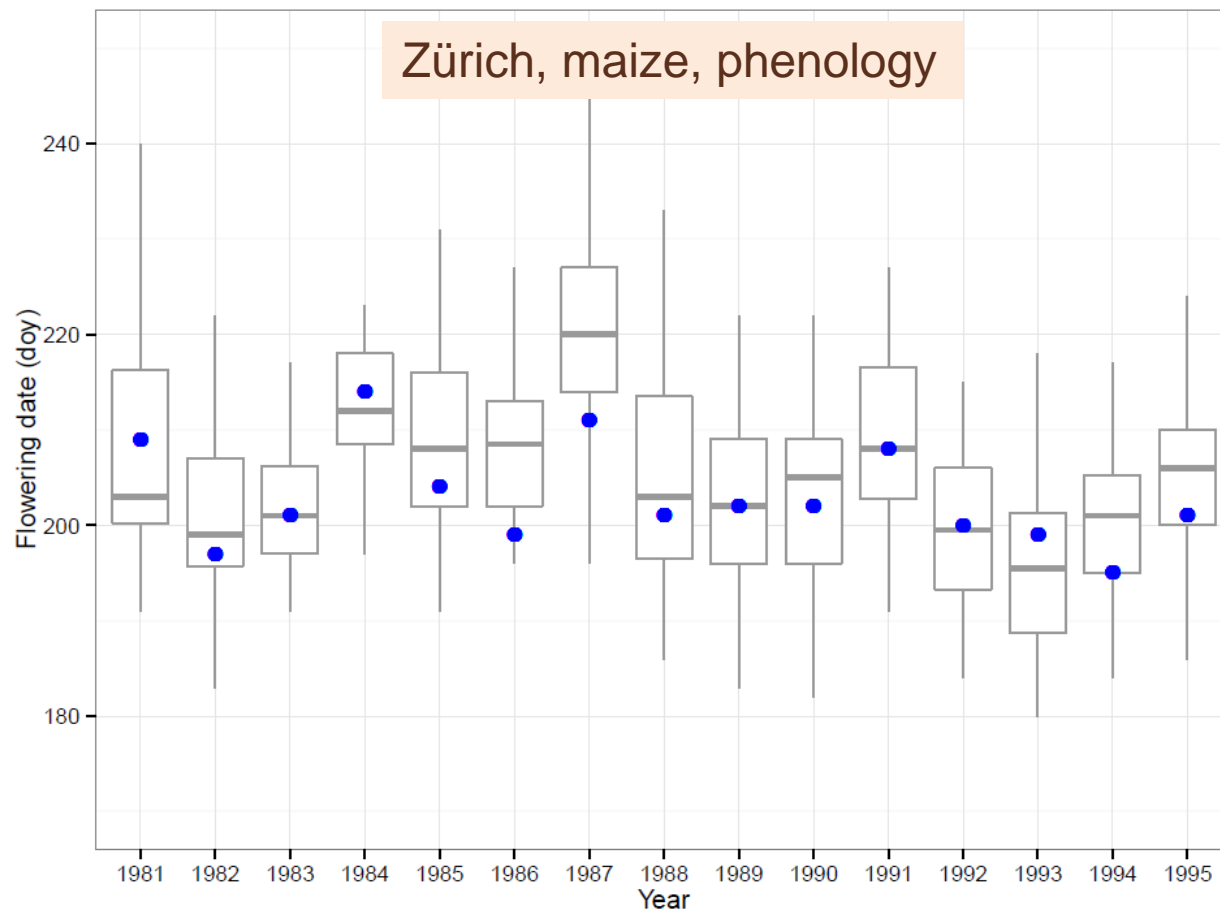


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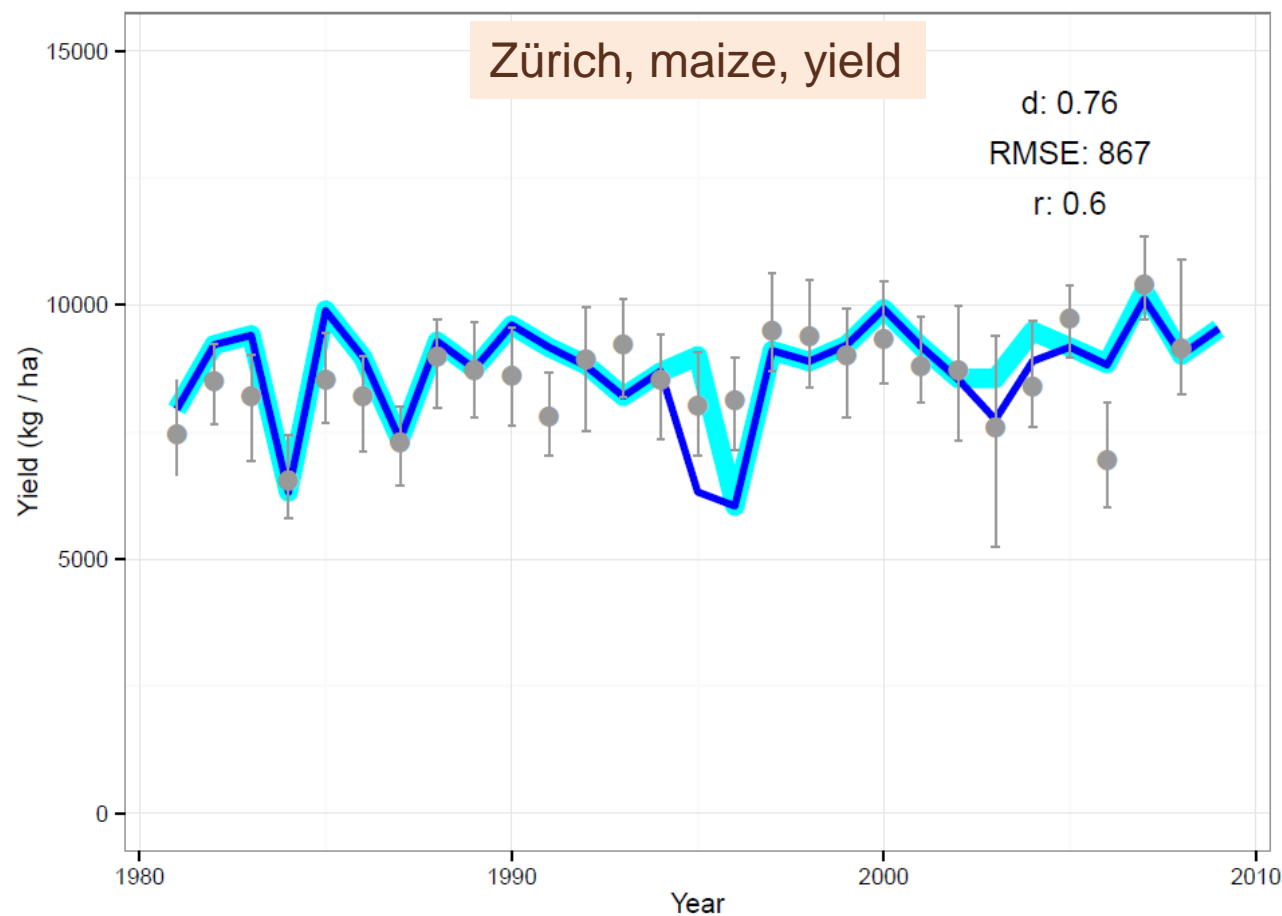


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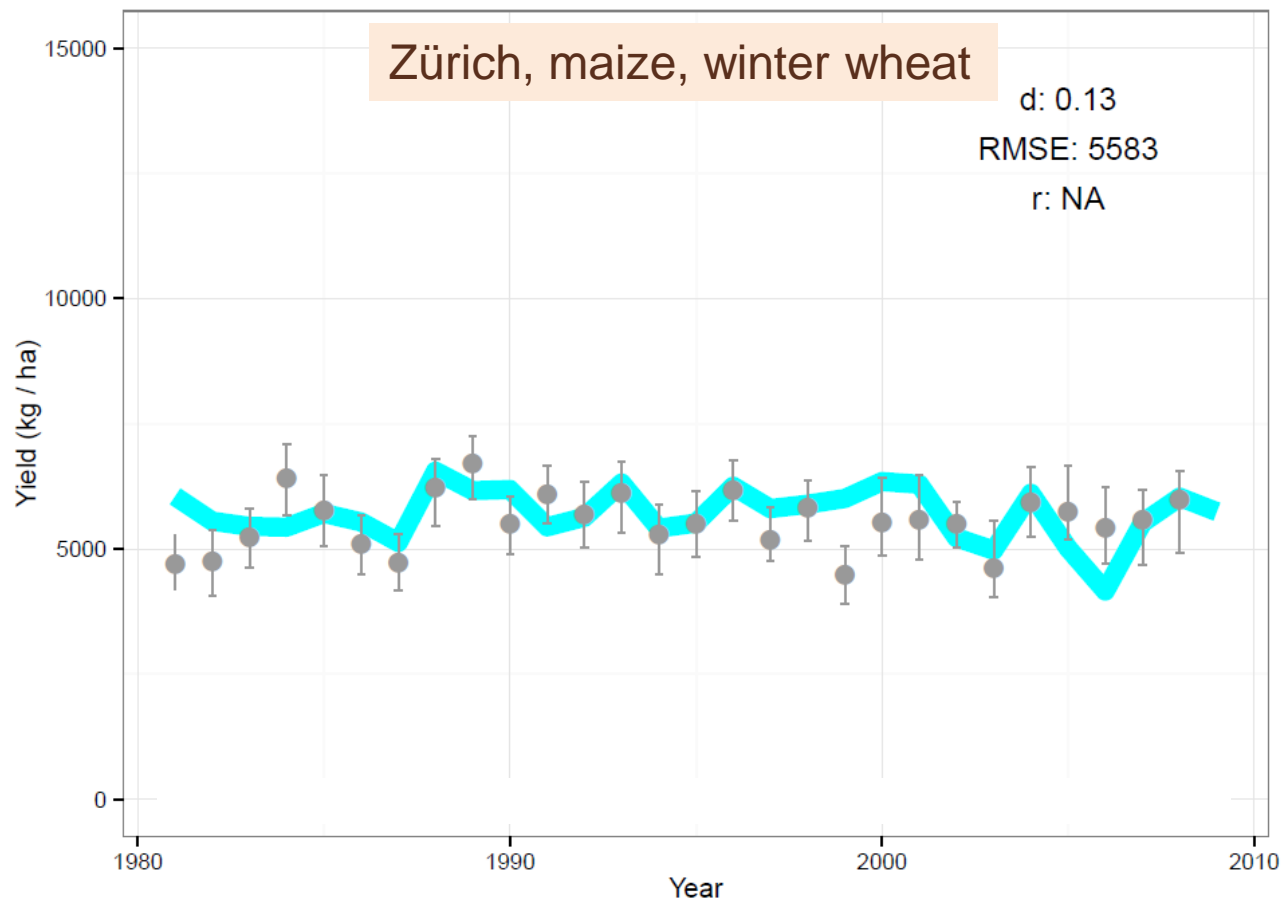
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# Problems

- Not everywhere satisfactory results
- Still in the process of testing options (parameters, thresholds, ...)



# Expected work for 2015

- Completing assessment of modelling solutions for current climatic conditions

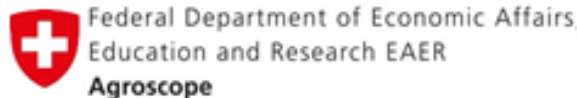


# Acknowledgement

*"The research leading to these results has received funding from the European Community's Seventh Framework Programme – FP7 (KBBE.2013.1.4-09) under Grant Agreement No. 613817, 2013-2016"*



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