

The Blood Operator Manager's toolkit

(Lean Management, Operations Research,
Psychology, Marketing, Management Accounting,
Structuring Organisations)

Gilles Folléa
Master Class in Benchmarking
Amsterdam, 31 May 2013

Agenda

- Organisers' expectations (learning objectives)
- Illustration 1: Collection performance
- Illustration 2: Lean management applied to collection
- Lessons learned: success ingredients
- Extending the benchmarking and Lean culture
- Conclusions

Organisers' expectations (learning objectives)

- Action as a managing director, very focused on performance improvement, on safety for patients and donors.
- **Leadership** on motivating your employees and donors for a safe and cost effective blood supply.
- Need for open views for **good ideas from different sciences outside our own profession.**
- Introductory **overview** of this master class.

EBA Benchmarking WG workshop on collection performance (2009): major outcomes flagged

- **Weaknesses (EFS PL)**
 - No manager accountable for collection performance
 - No simple indicator to daily assess performance
- **Solutions**
 - To appoint a manager accountable for each collection session
 - To provide him / her performance indicators at the level of each collection session.
 - Both solution implemented at Sanquin

Indicator for collection efficiency (2009, courtesy EFS)

Efficiency

Number of whole blood units (equivalent) collected / working hours in FTE (1820 hours/ year).

Calculated daily for each collection session

Available for each accountable manager

- Spontaneous benchmarking between managers
- Sharing solutions for improvement
- Appreciated by all (managers, staff, donors)

Whole blood equivalences

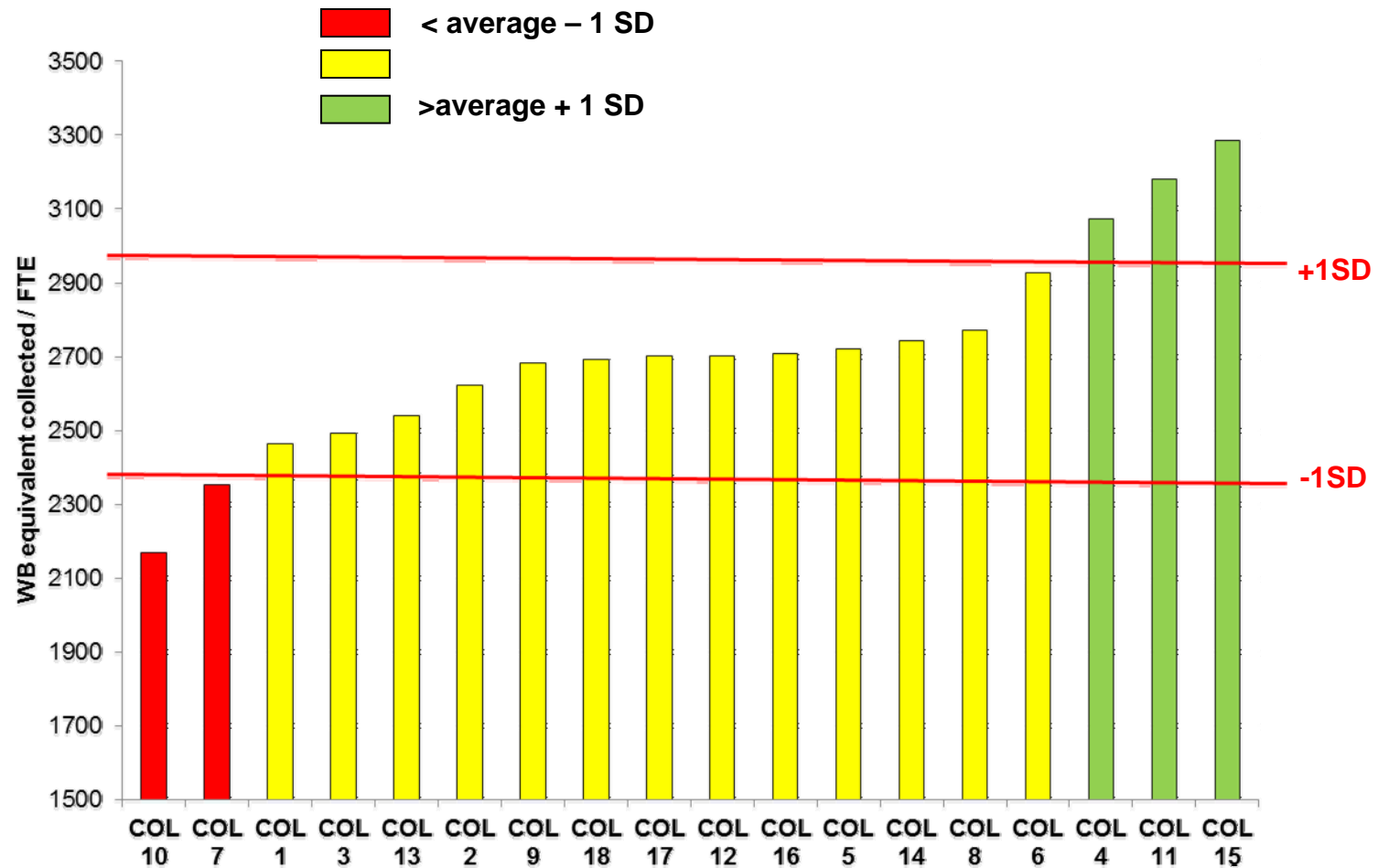
- Plasmapheresis : 1.50
- Platelet apheresis : 2.2
- Apheresis platelet + plasma : 2.2
- Apheresis platelet + RBC : 2.2
- Apheresis RBC + plasma : 1.4
- Erythrapheresis (2 RBC) : 1.6
- Granulocyte apheresis : 2.7
- Consultation + collection for Voluntary Bone Marrow Donor: 1.0
- Consultation + collection for biological test: 0.5

Efficiency: WB equivalent collected / working hours in FTE (2009. Courtesy EFS)

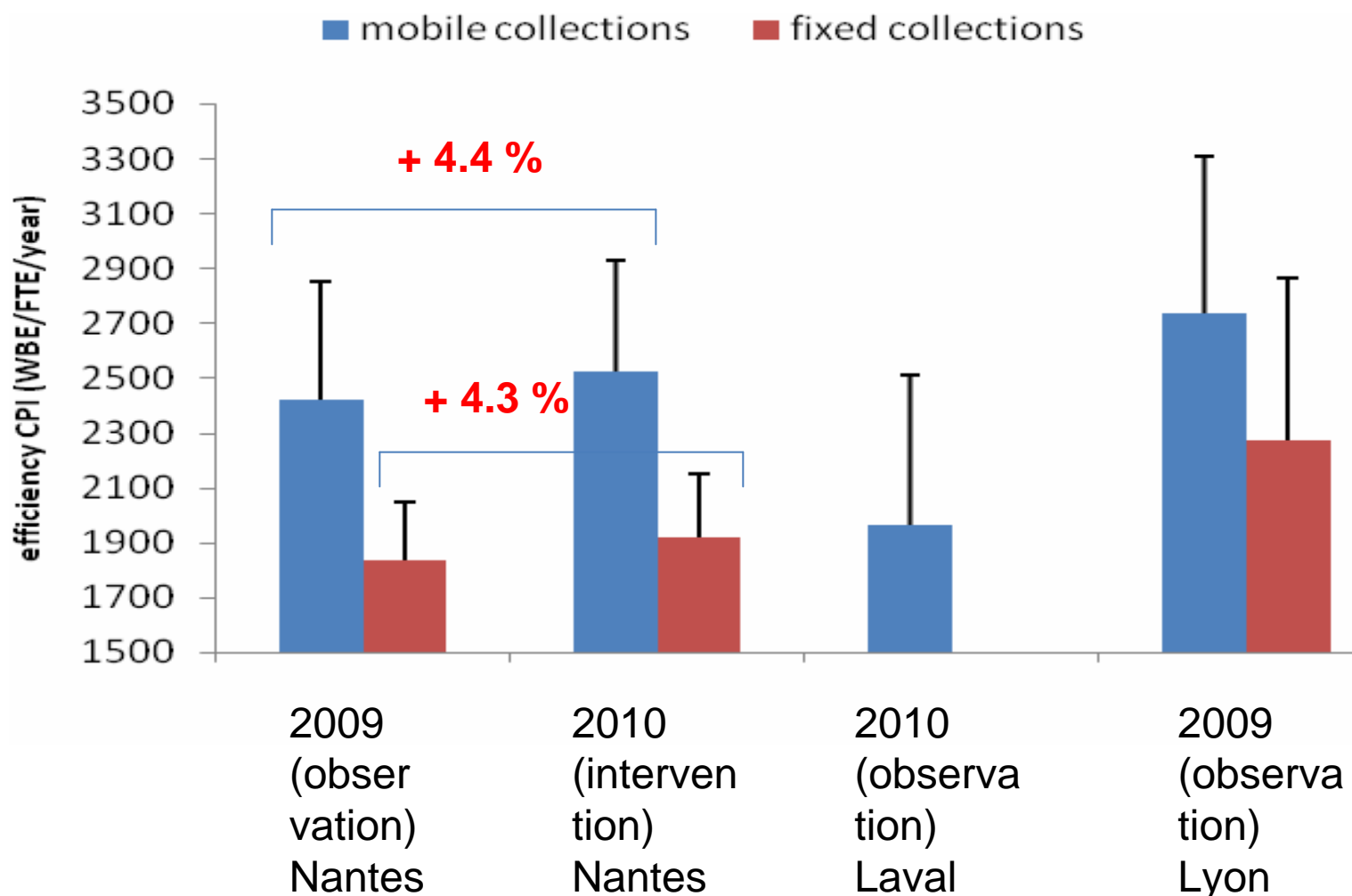
**Ratio
lowest /
highest:
up to 4**

**Analyze
collection
sessions**

- Average – 1 SD
- Average + 1 SD



Collection efficiency from different EFS BEs (2009, average – SD. Courtesy EFS)



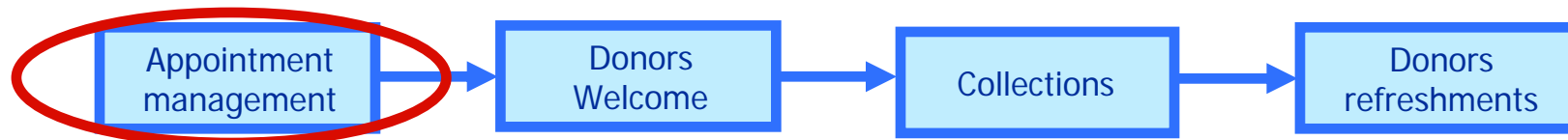
Lean Management applied to collection process (2009, courtesy EFS)

Continuous improvement, to:

- Adapt to the environment and its requirements.
- Improve staff skills and working conditions.
- **Improve performance in avoiding all wastes & losses of resources.**
- Fulfil the public health mission sustainably.

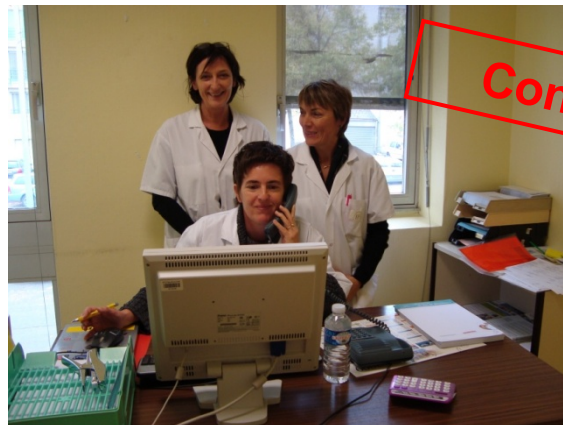


Apheresis plasma flow: examples of actions



- **Action : organising a donor calling cell** (dedicated secretary, planned time)
- **Results : filing rates on 3 weeks**
16.10.09 : 222 slots on 240 **92.5 %**
02.11.09 : 218 slots on 220 **99.0 %**
(bank holidays)

- **Action: poster + oriented question from secretary.**
- **Results: appointment made before collection for the next one:**
19% in July 09 → 48% in October 09

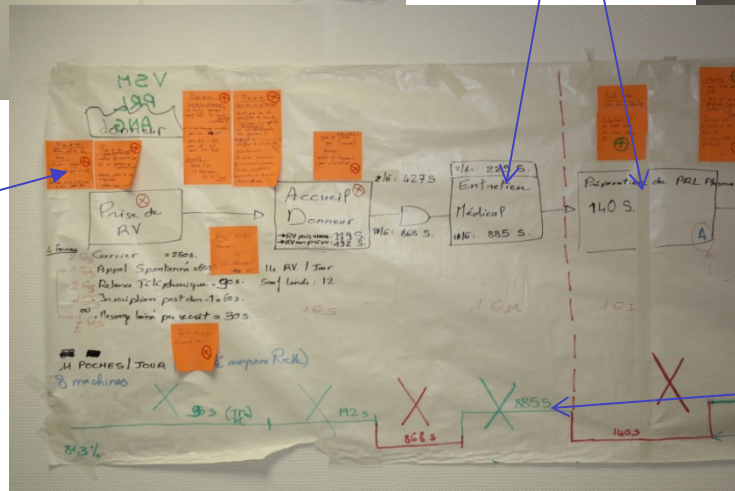


Reorganising a fixed collection site: main Lean tools

Value Stream Mapping (VSM)

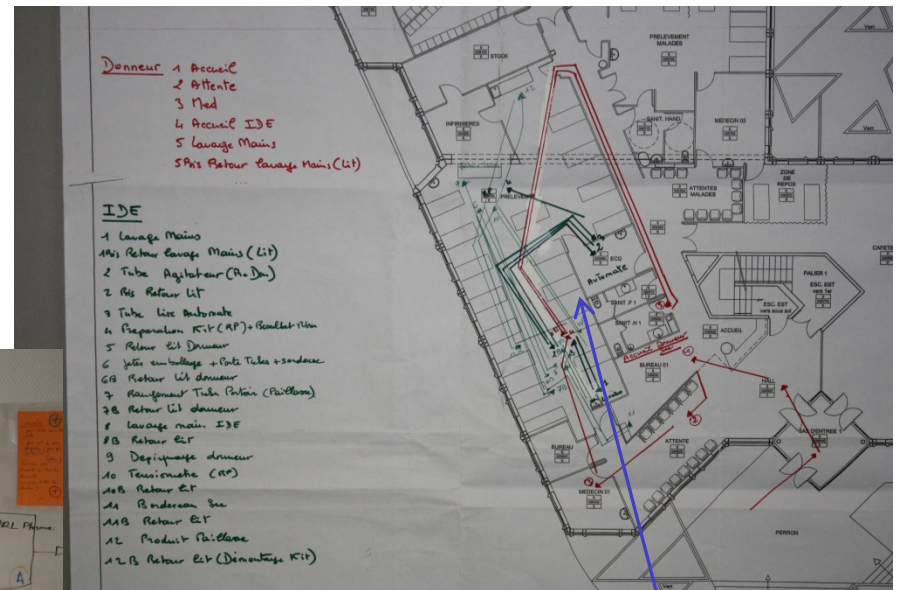


Process box



Problem list

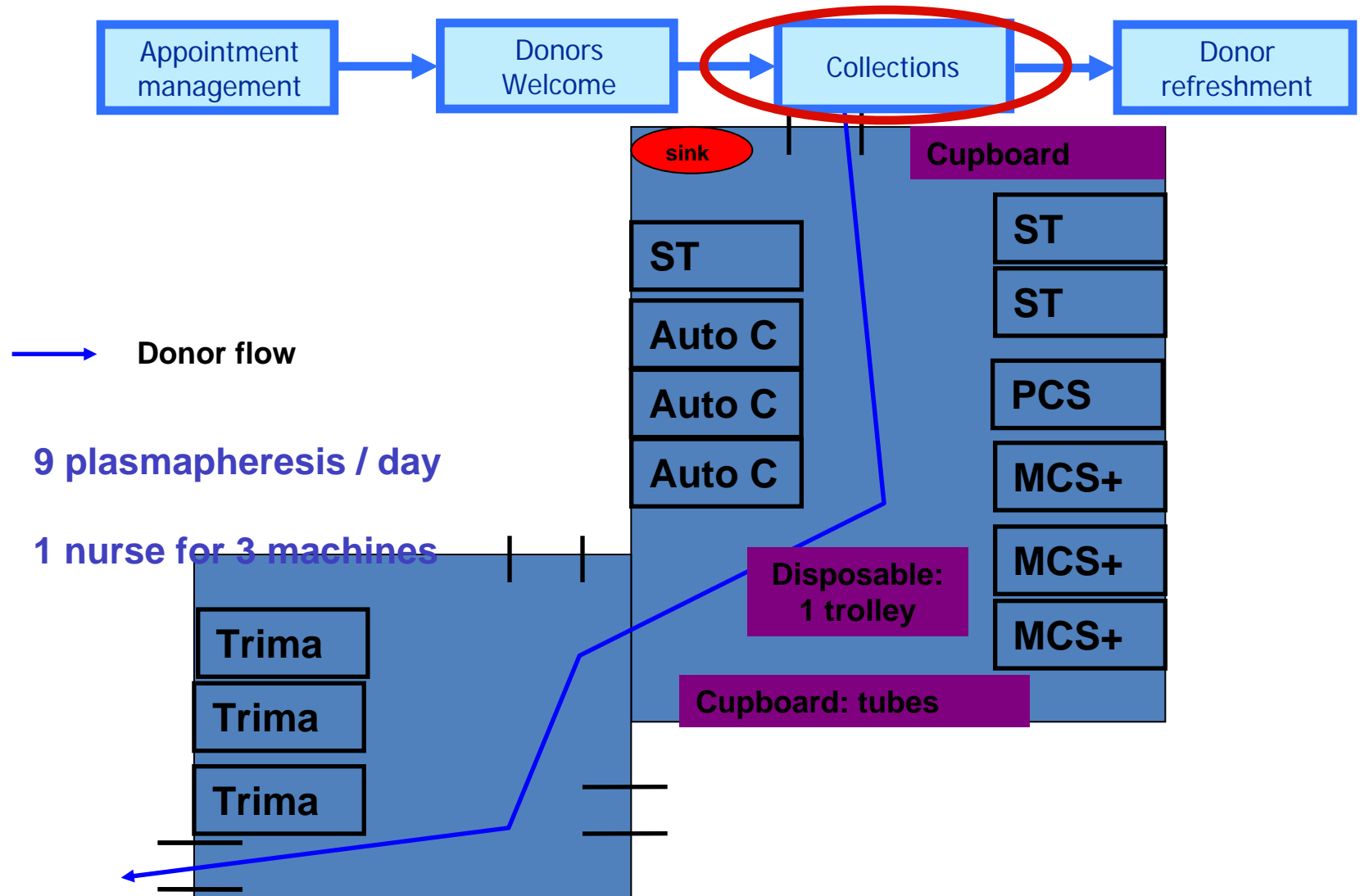
Spaghetti chart



Movements

Lead time (AV or non AV)

Flow chart: before « test days »



Preparing the « test day »



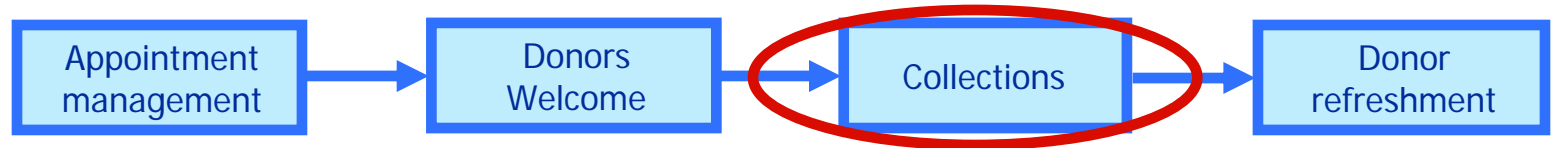
② Moving for the test day



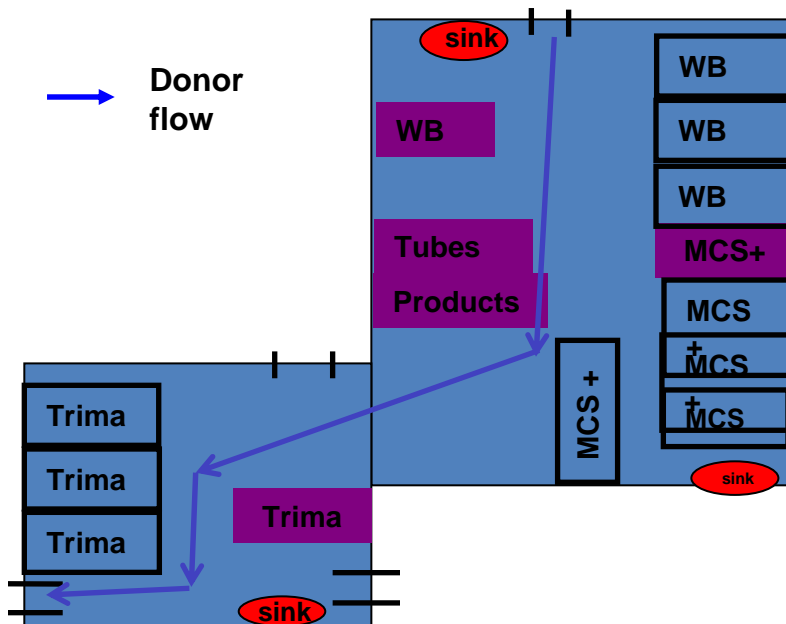
③ Organisation for the test day



Results: a new simplified flow chart



New flow chart:



Successive steps:

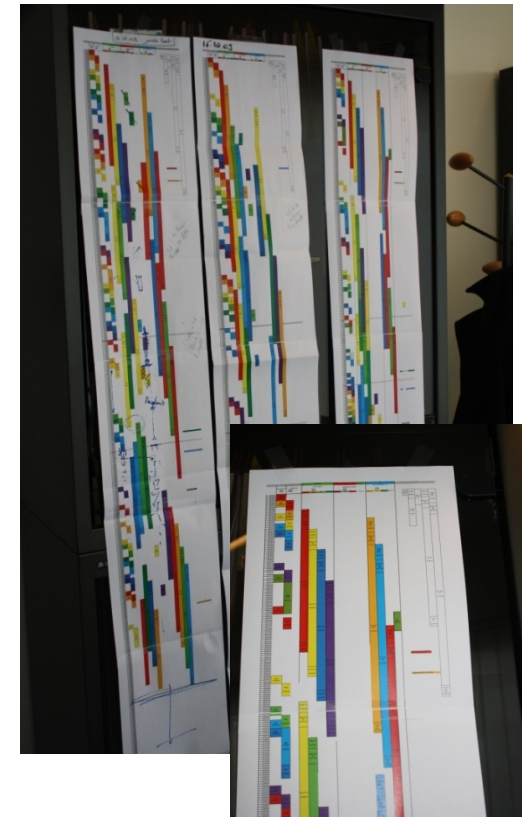
est days:

nurse for 4 machines

ess movements: **safer process.**

nurse more present: **donors satisfied.**

rom **11** collections/day (W39) to **19** (test).



Simultaneous improvement of quality **EBA** European Blood Alliance and performance of collections.

Lessons learned, success ingredients: management.

- **Permanent interactive Learning**
 - Within the BMG, within the BE: 360°
 - Beyond: collection efficiency indicators in DOMAINE Manual
- **Implementation management: cultural adaptation (Lean)**
 - Top-down: leadership, decisions
 - Bottom-up: solutions from daily life
 - **Collective work: staff participation & satisfaction**
- **Assessment: simple indicators / accountable managers**
- **Acknowledgment: virtuous spiral of interactive learning**

Lessons learned, success ingredients: multi-disciplinary cross-fertilisation

- **Psychology** (I. Veldhuizen, W. de Kort): theory of planned behaviour applied to donors
- **Marketing** (Héma-Québec): improving methods of donor recruitment and retention (DOMAINE)
- **Structuring and accrediting Organisations:**
“Investors in people” standard
- **HR:** developing and assessing staff satisfaction
- **Supply chain management:** transposed to the blood supply chain (CoE and ISBT WGs)
- ...

Extending the benchmarking and Lean culture

- Benchmarking has been successfully implemented in other areas of the blood supply chain
 - Processing, testing, ...
 - Blood use in Hospitals: RBC / 1,000 pop, average RBC per clinical indication...
 - Cost and prices of the transfusion chain (NL vs other countries)...
- Lean has been successfully used in other areas of BEs and in hospitals.
- Extending their use to the full transfusion chain is feasible and would **help to simultaneously improve quality / safety and efficiency.**

Acknowledgments to

- **ABO and Graham Sheer for having introduced benchmarking in BEs**
- **My (patient) teachers of the EBA BMG:**
 - **Eric Jansen**
 - **Steve Morgan**
 - **Vaughan Sydenham**
 - **Akif Ali**
- **Numerous colleagues in all these experiences**
- **All of you, for your attention, and for what I'll learn from you!**

**Enjoy the Benchmarking Master
class!**

**And then share it in the interactive
learning spiral!**

**For the benefit of patients and
donors**