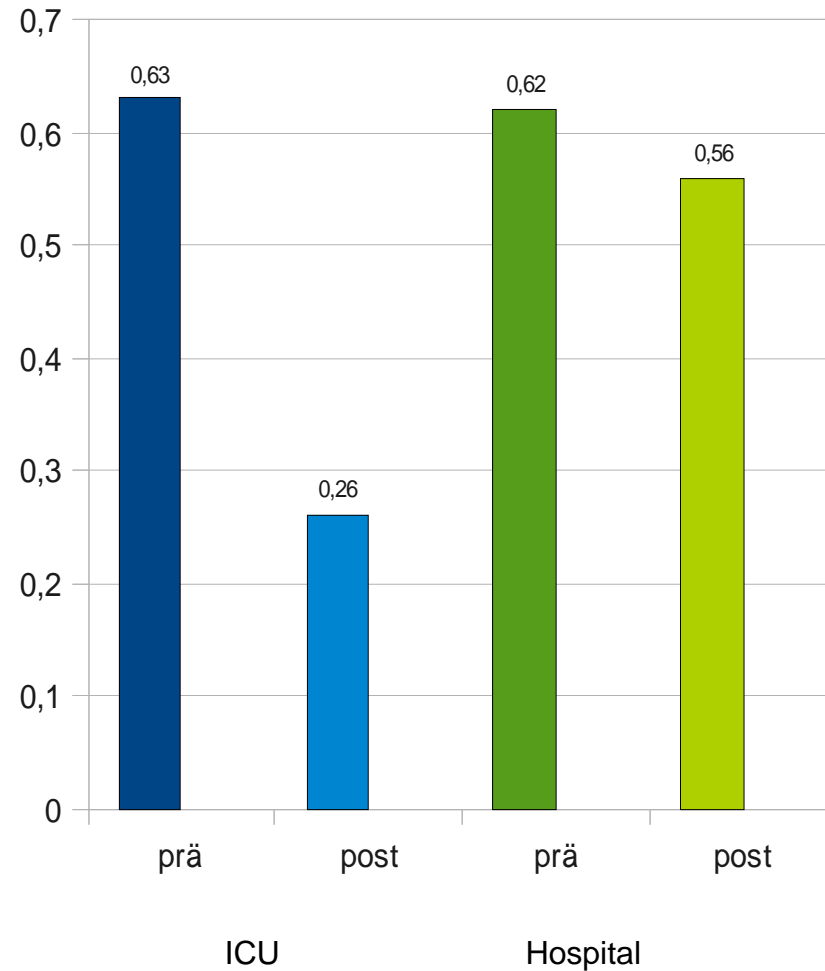


Thalea⁾⁾⁾ – PCP Workshop



Telemedicine in ICU

Reduced mortality



Zawada; Postgraduate Medicine 2009



Who's behind **Thalea**⁾⁾⁾

1. University Hospital Aachen (coordination) (Germany)
2. German Ministry of Innovation, Science and Research (Germany)
3. Maastricht University Medical Centre+ (Netherlands)
4. NL, Agency, Ministry of Economic Affairs (Netherlands)
5. ParcTauli Sabadell University Hospital (Spain)
6. Catalan Agency for Health Information, Assessment and Quality (Spain)
7. Hospital East Limburg (Belgium)
8. Northern Ostrobothnia Hospital District (Finland)





Identified demand

- Lack of a highly interoperable platform for telemedicine in ICU
- Capable to extract data in near real time from existing Patient Data Management Systems [PDMS]
- Offering decision support in telemedicine centres



THALEA aims

- Monitoring populations of ICU-patients
- Support of telemedicine centres
- Detecting deterioration -allows earlier intervention
- Tracking workflows & bundle compliance- improves compliance
- Standardization  ICU-Registry & Big Data
-  Pattern Recognition
- Faster dissemination of knowledge
- Improvement of compliance and guideline adherence
- Higher data quality

SAVING MORE LIVES



Functions I

-non exhaustive-

- Graphical representation
- Data processing I: (real time)
 - Aggregation, access to different levels of detail
 - Threshold notifications
 - Trend analysis, trend notifications
 - Tracking & visualisation of workflow (eg. sepsis resuscitation, sedation holds, spontaneous breathing trial)
- Data processing II: (registry data)
 - Anonymization (legal restrictions, privacy)
 - „Standard“ queries: LOS, mortality, severity of illness, preexisting diseases, vitals
 - Advanced queries: ARF, volume replacement (crystalloids vs colloid), antibiotic use, medication...



Functions II

-non exhaustive-

- Self learning algorithms
- Pattern recognition
 - Disease related
 - Population based
 - response to therapy vs. non-response
- Semantic interoperability
 - Diagnoses (clinical entities!)
 - History
 - Medication
 - Therapy

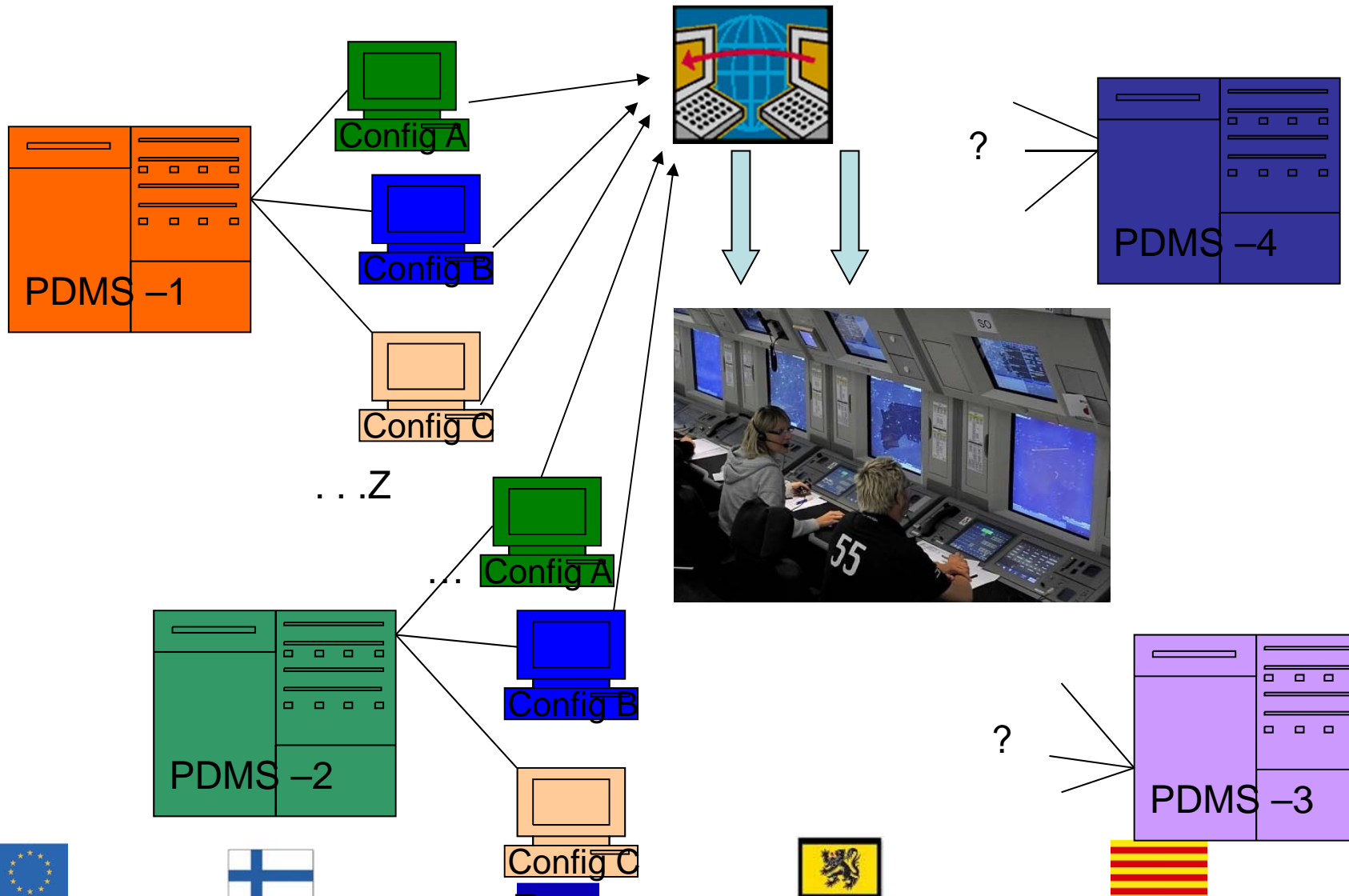


Data Source

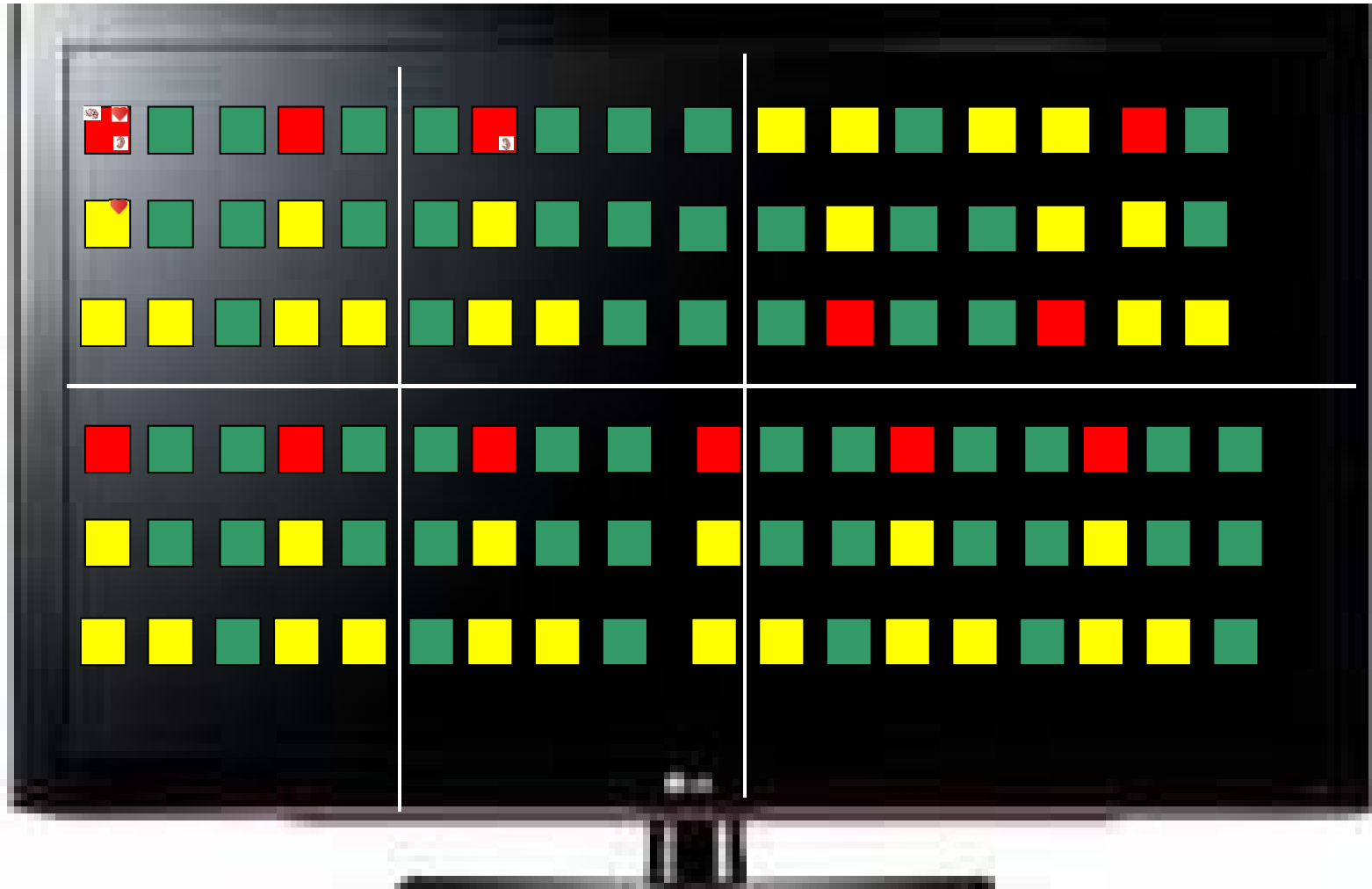
- Patient Data Management Systems [PDMS]
- Hospital information systems [HIS]
- Radiographic studies; Picture Archiving and Communication System [PACS]



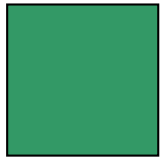
Telemedical control room



Center view- Draft



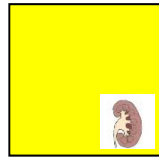
Unit view 2nd level



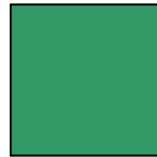
MMuster



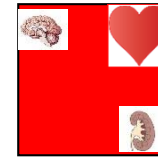
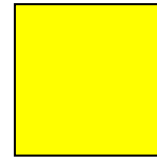
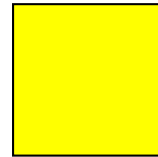
MMeikäläinen



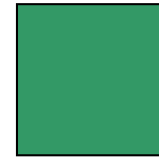
P Pérez



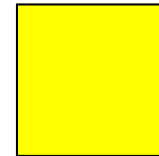
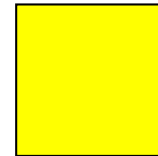
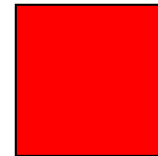
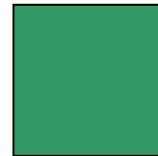
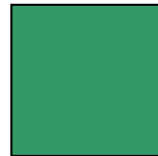
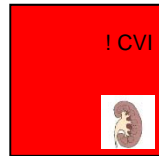
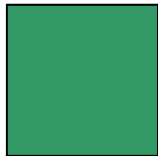
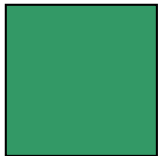
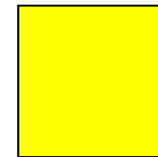
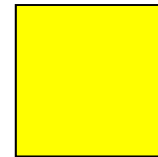
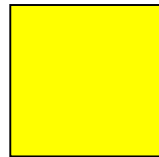
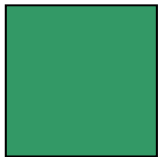
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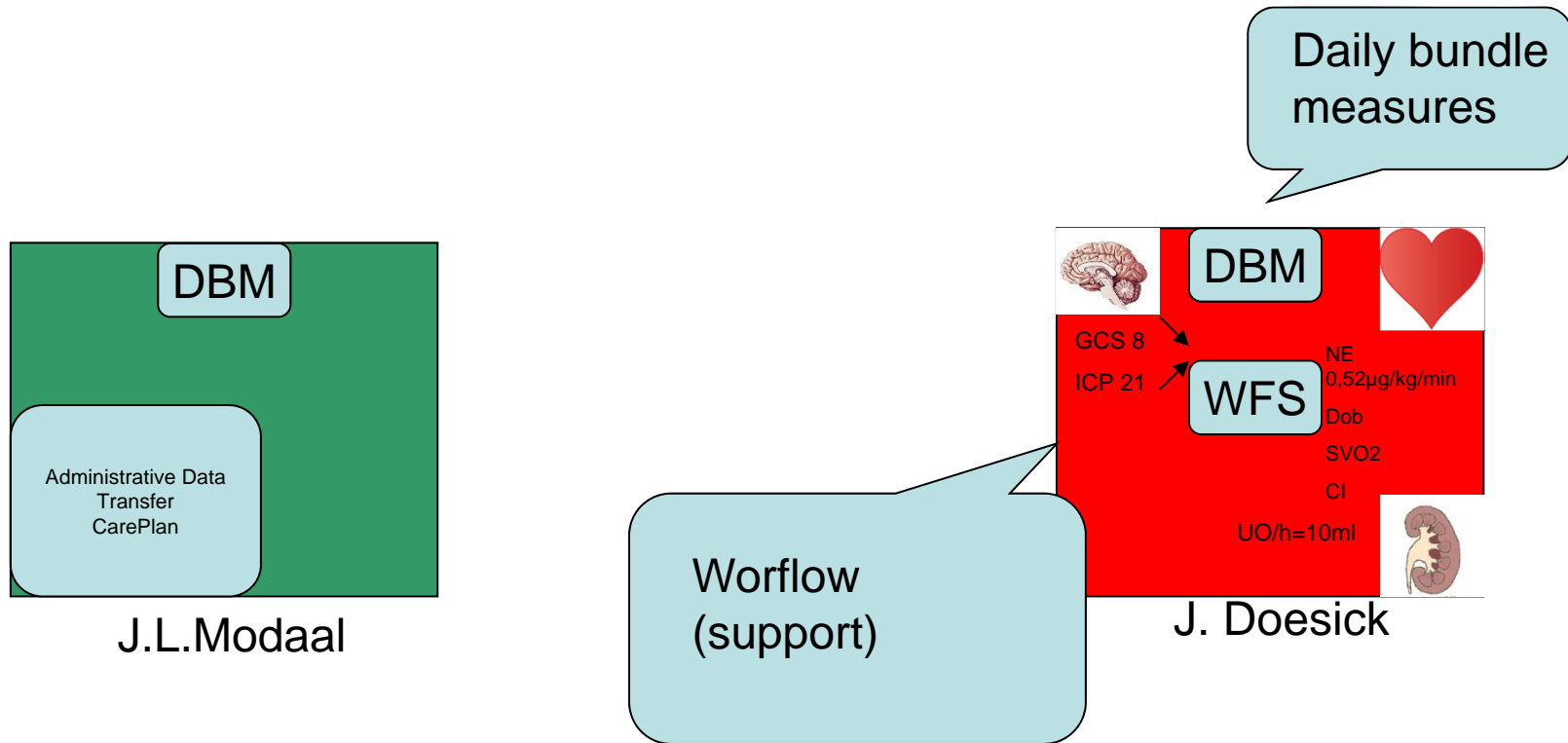
J. Doe



J. Modaal



Patient detail I



Changing design, context-sensitive prioritization and aggregation of data



Patient detail II

A yellow rectangular card with a red heart icon in the top right corner. Below the heart, the text reads "AF 12°" and "CVP 14" with a small black arrow pointing to the right.

M.Meikäläinen

A yellow rectangular card with a header "M.Meikäläinen". Below the header, there are two columns: "Diag: CAD" and "Op: CABG". Below these columns are two large yellow sections labeled "LAB" and "Resp".

Page 2

Activates
CVP & Diuresis
Trend-monitoring

WFS

Rule out PE!



Patient detail level **Thalea**⁾⁾⁾ **UNIKLINIK** **RWTHAACHEN**

- Graphical trends, long term vs. 24h hrs
- history, progress notes
- Medication, transfusion, fluid therapy
- Line duration
- Laboratory, microbiology



Open Market consultation I

- Aim
 - Market research
 - Insight in market and state of the art
- Duration
 - 20.12.2013 – 31.03.2014
 - Online questionnaire till 28th of February



Open market consultation II

- Results
 - 23 interested companies from 5 different countries
 - 52% are e-specified companies
 - 25% are PDMS manufacturers
 - 82% of companies are familiar with data-safety and security
 - Strong interest in forming of consortia

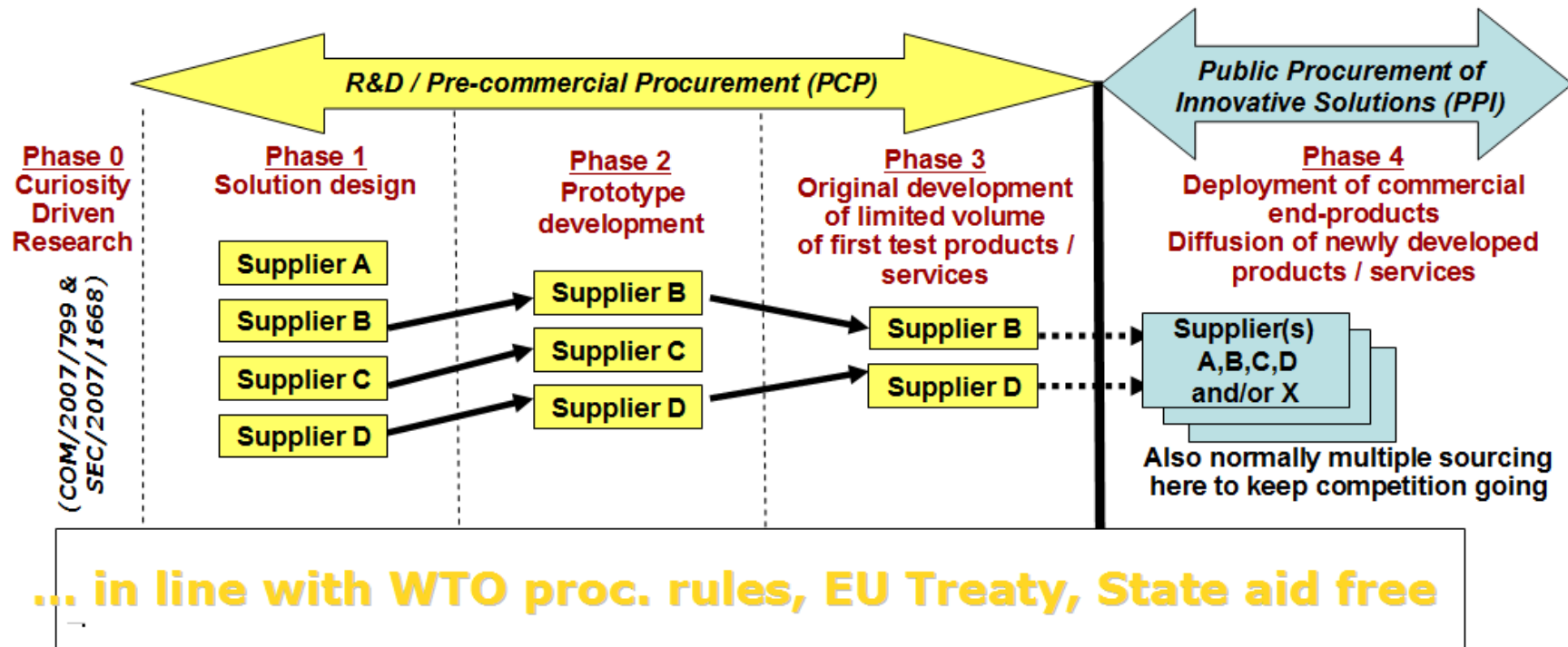


PCP process

1. Prior information notice
2. Functional description
3. Open procedure with bidding competition
4. Call for tender
5. Development and evaluation of products during three phases



PCP from demand to product



PCP

pilot-products

- structured evaluation according functional specifications
- Predefined decision matrix
- monitoring of decision
- Internal review and approval of specific selections



Ongoing actions

- Functional description
- Preparation of tender documents
- Review by Commission
- **Framework contract**
- Bidding contest



Actions and Dates

UNDER
REVISION

- Bidding contest
- Submission of documents after last webinar
- Submission deadline ~~30.4.2014, 12noon~~
expected: May 2014
- Physical presentation of companies
- Handover of official tender documents to ~~Top 10~~ companies or consortia

