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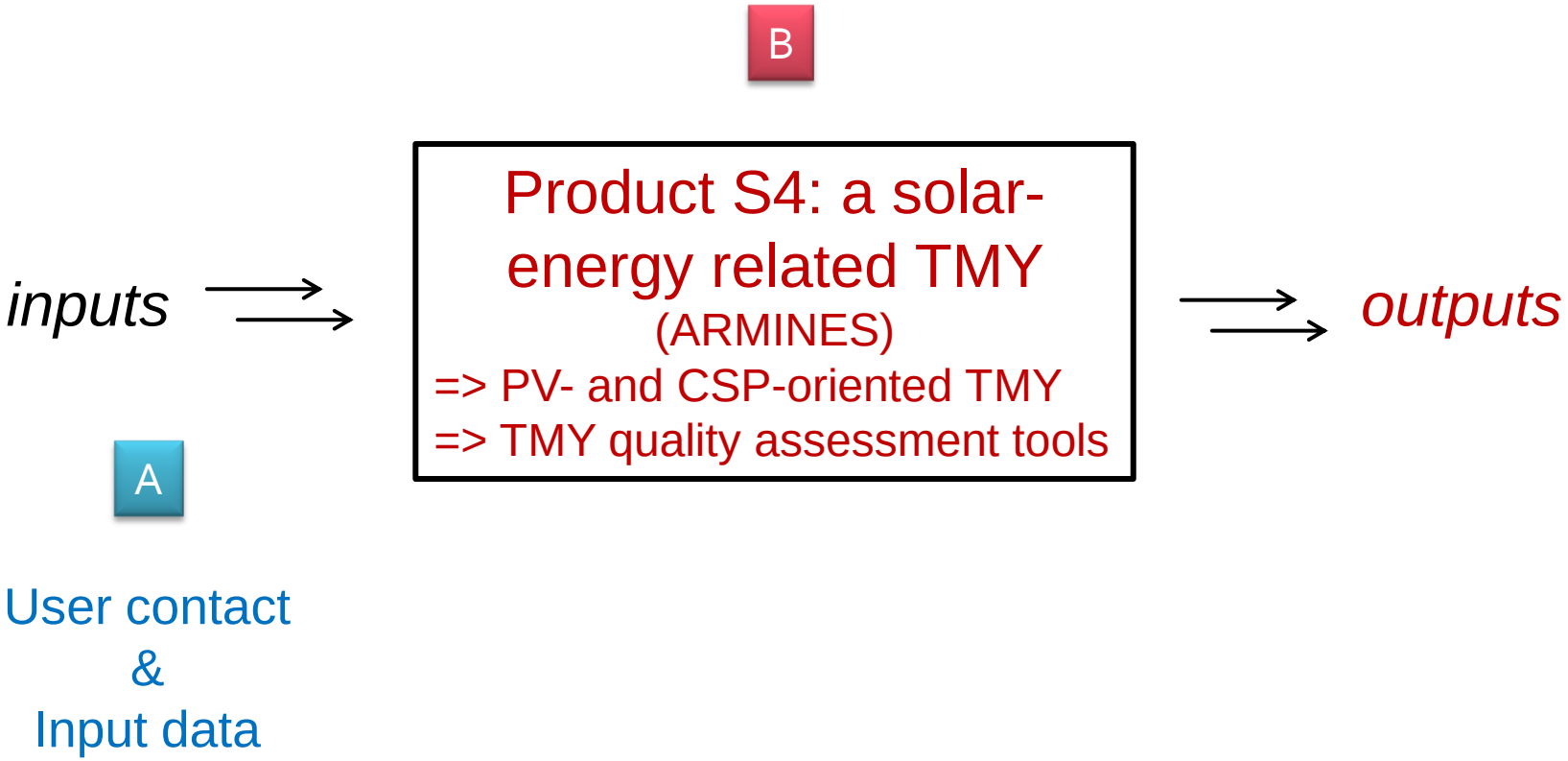
Pre-market service S4 “TMY generation”
Meeting #4 – July 3rd to 5th 2012

ENDORSE (Energy DOwnstReam SErvices)

Providing energy components for GMES

WP6_S4: service structure / workflow



Steps being undertaken until the service review in March 2013 A

- User contact/interactions & input data:
  - User contact: by email? Through the SoDa website?
  - User's specifications: required parameters (PV, CSP…)? Type of TMY?
  - Do they have input parameters on their own?
  - When do they need the TMY
  - Definition of the service price
- Input data
  - Availability,
  - Price
  - Quality
  - Confidentiality
  - Is the product S4 directly exploitable regarding the user's request? Is a pre-processing of the data necessary?

Steps being undertaken until the service review in March 2013 A

- Potential input data:
  - Irradiation: Atlas PACA (monthly/yearly, free of charge, limited to the PACA region), MACC (for instance HC3, limited to Meteosat FoV), ground station (available close to the location? Which parameter is available? Price? Do we need to hire local contractors to install and maintain measurement stations?)
  - Air temperature: WP3002, MERRA reanalyzes, MACC
  - Wind speed: MACC, MERRA
- Quality assessment and tools from WP3001-3
- Pre-processing of the data: e.g. calibration WP3004

Steps being undertaken until the service review in March 2013 B

- Product S4: a solar-energy related TMY
  - Code currently available in Matlab.
  - Provision of the report produced by the TMY quality assessment tool in text format (e.g. HTML, WORD…).
  - Lead time: is it time-consuming?
  - Computer capacity: does it require several computers over a long period?
  - How to familiarize the community with the quality assessment of TMY?

Demonstrator

inputs

Irradiation values from S1 the solar atlas PACA (MACC-HelioClim3), and Merra temperatures

New!

Product S4
2 options:
- Matlab
- webservice

Original TMY routine

Outputs

TMY in csv format, report in html => comparison between:
- *(TMY, report)$_{s4}$*
- *(TMY, report)$_{original}$*

Conclusion

- The market for the service S4 already exists!

Between 2010 and 2012, Transvalor already sold 13 TMY to three companies outside prime users based on the original TMY routine

=> Potential extended panel of users for WP5

- Widen the market: Transvalor and ARMINES already have a contact with a user working in the field of horticulture, and more precisely, in the design of high-tech and low-energy (i.e. non heated) greenhouses.

- Already a few answers: *the market exists!* Transvalor:
  - 2010: 2 TMY based on the long-term HelioClim3 time series (Cyprus, Morocco), calibrated using the ground station data provided by the user, and the original TMY version.
  - 2011: 8 TMY (without calibration) (France)
  - 2012: 3 TMY based on the long-term HC3 time series (France), calibrated with the user's data and ON THE SOLAR ATLAS PACA DATA!