With my knowledge, I strong believe that I could enjoy with the projects regarding to track objects in multiple cameras with non-overlapped FOV. I really excited about that project and with my knowledge, I suggest solving that project by deviding it into 3 small tasks.

- Object detection: using DNN to detect moving objects and combine with background subtraction to enhance the accuracy of detection in the case that DNN could not detect the objects, we also use method to detect two objects are merged or split, it help us in solving the occlusion in object detection.
- Object tracking: we could separate to track in single camera and track in multiple camera.
    - Single camera tracking: using kalman filter or optimal flow or some time series methods and combine with feature extraction and feature matching to track objects.
    - Multiple cameras tracking: it's mean we make sure assigning labels is consistent in all cameras. First thing we could use DNN and extract features like SIFT, ORG, color, shape, texture...to train deep features
        - In overlapped cameras: We could use stable matching with deep features of objects in the common FOV to make sure an object exist in several cameras has the same label.
        - In non-overlapped cameras: we could use the time, direction and velocity to predict the position of objects in another camera.

It's just my opinion, so maybe it's wrong and I really want to join with that project to research and prove that my thinking could be real.